June 20, 1931 Vol. LXXIX, No. 25

Textile World

Published every Saturday by Bragdon, Lord & Nagle Company,
Division of McGraw-Hill Publishing Company, Inc., New York

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Textile World *Wins A. B. P. Medal*

THE 1930 Associated Business Papers Medal for Outstanding Editorial Service has been awarded to Textile World, according to announcement made this week. The specific service rewarded was this publication's contribution to the rehabilitation of the textile industry. Thus for the second time in three years Textile World has been given first ranking among the 150 leading papers, serving all branches of industry and business, which comprise the A. B. P. membership.

While naturally conscious and proud of the honor which has come to them through this award, the editors are equally aware of the recognition granted to the textile industry for its constructive efforts. They feel that, if the Jury of Awards had not been cognizant of the real strides made recently by textile manufacturers, the contribution made by this publication would not have been given first place in the business paper field. Consequently the editors ask their readers to share their gratification at this tribute which has come to them mutually.

The award was based on the fact that Textile World, at the beginning of 1930, offered a definite program for the industry; utilized that program as the framework for its editorial appeal, personal contacts and special efforts; and thus helped to crystallize in the minds of the members of its industry, the consciousness of a unified approach to a definite objective, or set of objectives—and materially aided the industry in achieving those objectives.

It was based further on the fact that due to its new sense of unity and enterprise, the industry passed very definitely, during 1930, out of the "backward" class into the class of "progressive" industries.

Naturally, Textile World did not, single-handed, rehabilitate the industry. During recent years, manufacturers have set up constructive agencies for this work. Without them, the results accomplished to date would have been impossible. Textile World's function, for which it has been honored, has been to attempt to unify the efforts of these agencies; to give them its aggressive support; and to point the way in which their objectives might be reached. It has striven to render articulate the desire of the industry to help itself; and to create the sense of a concerted program, for development by the industry.

The job is not finished. But the start made is sufficient to inspire us to look forward confidently to continued textile progress and to the achievement of permanent prosperity for the industry and its workers.

A. B. P. Medal Winners

The business papers which have won the A.B.P. Medal for "definite and outstanding service to the publication's field" in each of the four years since this award has been in existence, are listed below:

1927—*Electric Railway Journal*
1928—*Textile World*
1929—*Advertising & Selling*
1930—*Textile World*

In addition, *Textile World* was accorded honorable mention in the 1927 award.

The Week in Textiles

as Reflected in This Issue

General

Yarn Merchandising Problems

Three interesting communications on the subject of yarn merchandising problems are given as the seventh installment of the series on this topic. Recognition of selling cost in figuring prices, technical helps for customers, confining accounts, and the suggestion of distribution by auction are some of the points stressed by leaders in the field. *(page 28)*

Stabilizing Employment

Howell Cheney, leading a discussion on stabilization of employment at a recent meeting of the American Society of Mechanical Engineers, favored a reduction in wages. Opposing opinions were advanced. *(page 36)*

Research Institute Meets

The meeting of the board of U. S. Institute for Textile Research last Tuesday stressed market research. Improvement of processes and development of new products was offered by the president, Dr. Stratton, as the best insurance against over-capacity. *(page 43)*

What Color Is White?

White, in the color expert's parlance can mean any one of six colors, according to the 1931 fall color card, just issued by the Textile Color Card Association of the U. S. The card highlights three groups, "French Colonials," all gay reds, oranges and purples, "Petit Fours," mostly pastels, and "Silent Shades," which enumerates six shades that are almost—but not quite—white: Ciel, Cloud, Ice, Rose, Calla and Mauve.

Cotton

Sound Policies Stressed by S.T.A.

The annual convention of the Southern Textile Association was featured by a group of speeches stressing sound policies which may be trusted to bring the industry back to a prosperous plane. Frank recognition of problems is the first step toward their solution. T. W. Mullen was elected president for the new term. B. B. Gossett, in his banquet speech, gave a clear picture of the industry's position and struck an optimistic note in assurance that difficulties can be overcome. *(page 22)*

Sewing-Thread Twist

Spinners for the cloth trade still have difficulty in understanding what direction of twist is intended in the specifications for singles drawn up by the cotton-thread trade. Confusion exists in the latter branch of the industry over suitable twist multipliers for various threads. *(page 32)*

Further Curtailment Needed

Figures on cotton goods position for May show gain of 7% in stocks and loss of 15½% in unfilled orders during the month. The indicated need for curtailment will probably be taken care of by summer shutdowns. *(page 42)*

Narrow Fabric Men Meet

A recent meeting of the narrow sheetings group of The Cotton-Textile Institute went on record as condemning night operation of mills and approving the promotion of National Cotton Week. They also heard of several absolutely new uses for cotton goods. *(page 43)*

Beater Blows and Card Settings

A reader offers suggestions based on his experience for choosing suitable beater speeds for two-process picking, and suitable settings for cards. *(page 48)*

Yarns Quiet but Firmer

Cotton yarns have seized upon the resistance to further decline lately shown by cotton as a rallying point to bring about a firmer attitude on yarn prices. A measure of success is reported though the yarn market still remains quiet. *(page 59)*

Cotton Market Steadier

Cotton's resistance to decline has made an impression lately and though rallies may not get very far the tone of the market is more optimistic. *(page 59)*

Cotton Goods Steadier

Actual increase in sales in Worth Street as result of National Cotton Week is yet to be seen. Sellers are more optimistic than for a month, looking forward to early improvement as result of it. Mill curtailment is holding market on fairly steady keel. *(page 65)*

Wool

Laid and Mock Twists

Laid twist, mock twist, and other useful devices are effectively employed in overcoatings, tweeds, and cassimeres. *(page 34)*

Astrakhan Yarns

Astrakhan yarns can be made by employing two wools of different shrinking properties or by delivering one yarn faster than the other in twisting. *(page 48)*

The Textile Outlook

RIFTS in the clouds give promise of a clearing away of many current difficulties which have overshadowed the textile markets. Steadier raw materials, particularly cotton and wool, give basis for greater buyer confidence in current values. Lower retail prices are bringing nearer the broader distribution which abnormally low raw materials should induce. Uncovered consumer needs suggest active selling once the movement gets under way. Of course the big, basic problems remain—they are matters out of which the industry must evolve; they cannot be left behind in a day. Indications are however that a fair summer lies ahead; it should be better than last year as each month rolls by. . . . Cottons show firmness as the raw material gives them the first week of steadiness seen for some time. Mill curtailment is necessary to clinch improvement and this will be much in evidence during the summer. Wool goods demand broadens as deliveries become scarce from the most popular mills. Hosiery specialties sell well; swimsuits are active. Silk goods still labor under cut throat competition. Raw silk is steadier though no real recovery is yet in sight.

Expect Broader Wool Market

Wools on the finer end of the market enjoy a well established position. The coarser sorts lag. Dealers look for broader mill buying. *(page 61)*

Worsted Yarns Well Sold

Worsted yarns are well sold for nearby and spinners have reason to expect further business during next few weeks. Prices are fairly steady but still profitless. *(page 61)*

Men's Wear Situation Tightens

Tightness in the delivery situation in men's wear lines is expected to continue for months ahead. Trend toward fancies would make it even worse. If plains continue in favor a gradual improvement by fall may be expected. *(page 65)*

Knitting

Finishing Hosiery

Careful regulation of temperature is essential in finishing pure-silk full-fashioned hosiery. Suitable temperatures for boarding chiffon and service-weight hosiery are given, and use of thermostatically controlled heating units is advocated. *(page 49)*

Novelty Yarn

Novelty yarn in knit goods often means sleepless nights for the knitter and profits for the firm. An extra guide, suitably placed, facilitates its use. *(page 37)*

Profit in Cheap Mesh Hosiery

Contrasting with other hosiery lines which are weak and quiet, mesh hosiery, especially low-priced seamless, is selling four weeks ahead. The call may be brief, but it is profitable at present. *(page 66)*

Swimsuits O.K., Thank You!

Swimsuit mills approach the turn of the season, very satisfied with both sales and profits. Demand is excellent, and prices tend upward. *(page 66)*

Defining Fair Trade Practices

IT IS DIFFICULT to overrate the significance of the work done on defining fair trade practices in the sale and purchase of cotton gray goods for the converting trade, by committees representing the Association of Cotton Textile Merchants of N. Y. and the Textile Converters Association.

These committees approached, in a cooperative manner, one of the most controversial and most important matters in textile trading. The results of the work, described elsewhere in this issue, furnish another, and a striking, example of the possibilities of coordinated action.—*Editor.*

Fall Union Suits Selling

Belated demand for fall underwear, stressing union suits, has begun to show itself, and there is talk of stock shortage in August, due to backward season. *(page 66)*

Silk

New Type of Silk Fabric

"Silk Shetland," a soft, dull-finish fabric not unlike a woolen in appearance, is the offering of Totaro Aoki, a leading Japanese manufacturer, as a bid for a share in the clothing fabric market where wool goods have held undisputed sway. *(page 30)*

Silk Recovery Not Sighted

Sustained recovery in raw silk is still out of sight, says Dr. L. H. Haney in this week's TEXTILE WORLD Analyst. Despite the large yardage of silk fabrics sold, he points out, prices are not strong enough to be of any reflex aid to the raw material market. A slight improvement in statistical position this month may be a foundation for gain. *(page 55)*

Silk Strength Short-Lived

Reports that Japan definitely decided to use surplus in domestic mills brought sharp rise in raw silk, but when the reports were unconfirmed, prices fell again. Little buying interest. Good July expected. *(page 63)*

Summer Apathy Hits Yarns

Thrown and spun yarns both are quiet, due to summer lull. Production is curtailed. *(page 63)*

Fabric Buyers Hesitant

Continued price-cutting in broadsilks has made buyers wary; they hold off on orders, anticipating further weakness. Velvets active; mild interest in flat crepe plains, pastel shades. *(page 65)*

Rayon

Holes in Half Hose

Proper adjustment of the stationary tin tube is suggested as a remedy for rayon breaking out in the foot of half hose. *(page 49)*

See Brief Summer Lull

Yarn producers expect the summer lull, which now is slowing up sales, to be of short duration; they look for resumption of activity early in August. *(page 63)*

Processing

Chemical Engineering

Well advanced mechanically, the textile industry from the viewpoint of the chemical engineer still holds to rule-of-thumb methods. A number of major problems are presented, the solution of which would result in marked economies. *(page 38)*

Degumming Agents

A study of the physical and chemical properties of the variety of degumming agents now available discloses that the material to be processed and the method employed are important factors in the selection of a particular type of product. *(page 40)*

Weighting Four-Thread Crepe

Difficulties in weighting four-thread crepe may be due to a variety of reasons. Precautions necessary in the four-pass tin method are stated and directions given for securing 80 to 90% weighting. *(page 49)*

Electro-Chemical Feed

Danger of overfeeding or underfeeding of chemicals is eliminated by use of an improved electro-chemical feed announced recently. *(page 52)*

The Business Outlook

SUMMER sets in without any sign that business is going to break through the bottom on which it has been stabilizing itself for six months. The seasonal let-down in the general level of activity seems, on the whole, to be little, if any, more than usual so far, and in some respects slow improvement since the beginning of the year has become evident. This is most marked in trade lines closest to the consumer, where low prices and accumulated attrition on the second pair of pants appear to have stimulated replacement of current requirements. Merchandise carloadings, for instance, have shown a slow rise since last December, after due allowance for seasonal factors; and retail trade reports are reassuring as to volume, if not profits. Check payments outside New York also show a rising trend since March; and though currency in circulation has been affected by confidence in banking conditions, the relatively high level is probably not without some trade significance. Commodity prices have rallied slightly after recent sharp declines, and bond markets have made a little better showing. The basic production and construction industries alone offer little encouragement for early recovery.—*The Business Week.*

Southern Textile Association

Elects T. W. Mullen President for New Year

T. W. Mullen, elected president, S.T.A.

THE annual meeting of the Southern Textile Association, held at the Isle of Palms, near Charleston, S. C., June 12-13, was largely a "family affair." With the exception of the splendid banquet address of B. B. Gossett, Charlotte, N. C., first vice-president, the American Cotton Manufacturers' Association, and the humorous address of Dr. Ashley Chappell, every speech on the convention program was delivered by a member or associate member of the association.

T. W. Mullen, superintendent, Rosemary Mfg. Co., Roanoke Rapids, N. C., was elected president of the association for 1931-32, succeeding J. O. Corn, Columbia, S. C. Mr. Mullen is a former chairman of the Eastern Carolina Division, and has served the S.T.A. faithfully and efficiently as chairman of the board of governors and during the last year as vice-president.

Other officers elected in the regular business session Saturday morning were: Frank K. Petrea, superintendent, Swift Mfg. Co., Columbus, Ga., vice-president; H. H. Iler, mechanical engineer, Union Bleachery, Greenville, S. C., chairman of the board of governors; and Marshall Dilling, superintendent, A. M. Smyre Mfg. Co., Gastonia, N. C., executive secretary. Mr. Dilling was re-elected to that office.

Vacancies on the board of governors were filled by the election of M. R. Vick, Roanoke Rapids, N. C.; Culver Batson, Lynchburg, Va.; F. L. Still, Greer, S. C.; and R. J. Jennings, Lanett, Ala.

Walter C. Taylor, secretary of the association, in his annual report, indicated several ways in which the organization's activities had been extended during the year. He reported that membership had increased substantially and that every effort was being made to cooperate more closely with other textile associations.

The "Wear-Cotton" theme played an important part in the program. Following the annual banquet Friday evening, a colorful style-show and a "cotton ball" were enjoyed by more than 200 members and visitors. The association also went on record in the business session, urging manufacturers of starch to ship their product in cotton instead of jute bags. Members were asked to write starch manufacturers to that effect.

Arkwrights' Annual Meeting

The annual meeting of The Arkwrights, Inc., affiliated research organization, was held Friday morning, and the board of directors of that body met the following day. Marshall Dilling, president, announced the results of a mail-ballot conducted to elect the new board of directors. This body is composed of the following: J. O. Corn, Columbia, S. C., W. B. Hodge, Charlotte, N. C., and F. Gordon Cobb, Lancaster, S. C., to serve until 1932; T. W. Mullen, Roanoke Rapids, N. C., H. K. Hallett, Paw Creek, N. C., and J. O. Edwards, Rhodiss, N. C., to serve until 1933; Marshall Dilling, Gastonia, N. C., Carl R. Harris, West Durham, N. C., and James A. Chapman, Jr., Inman, S. C., to serve until 1934; associate members: Culver Batson, Lynchburg, Va., A. E. Jury, Winnsboro, S. C., and David Clark, Charlotte, N. C.

In addition to the above, the board of directors includes representatives of three corporate members: Barber-Colman Co., Borne-Scrymser Co., and Universal Winding Co.; and three contributing members: Balfour (N. C.) Mills, Belton (S. C.) Mills and the Republic Cotton Mills, Great Falls, S. C.

Officers of the Arkwrights, all of whom were re-elected, are Marshall Dilling, president; Carl R. Harris, vice-president; and Walter C. Taylor, secretary-treasurer. The executive committee is composed of the above officers and W. B. Hodge, A. E. Jury, J. O. Edwards and James A. Chapman, Jr.

J. O. Corn, Columbia, S. C., and L. A. Elmore, Rhodiss, N. C., were promoted from associate membership to full membership in recognition of the satisfactory completion of mill tests under the supervision of the Arkwright research committee. They were presented with Arkwright medals at the business session.

Constructive Criticism of the Southern Industry

THE address by B. B. Gossett, recently elected first vice-president of the American Cotton Manufacturers Association, at the S.T.A. banquet at Isle of Palms (S.C.) Hotel on the evening of June 12, was a frank presentation of the cotton industry's situation at the present time. Mr. Gossett did not mince words but exposed fearlessly the retarding elements as he sees them. However he ex-

pressed confidence in the industry's inherent ability to solve its problems and to develop progressive leadership. His address follows in large part:

It seems unnecessary to point out that we are in the midst of one of the most profound and trying periods of depression in the history of modern business. Of all the great industries, the textile industry has perhaps felt this period of depression more acutely than any of the others. This has primarily been due to the fact that our industry was already greatly weakened as a result of a prolonged period of unsatisfactory and unprofitable business prior to the beginning of the present acute depression, while, for several years previous, most other industries had enjoyed profitable operations.

At this time conditions in our own industry are no worse than in other industries. In some respects they are better. Unfortunately, the end is not yet in sight, but there are good grounds for hoping the worst is back of us. Among other things, we know that our basic raw materials are now at a point where further shrinkage seems improbable so that the industry will not be confronted with further serious inventory adjustments. It has also been definitely demonstrated that production can be kept in proper balance and a majority of the mills have in fact adopted the policy of regulating production to present and prospective demand. Indeed, in a word, the textile industry of the United States has undergone a general overhauling in fundamentals in the last year, and this, coupled with the tendency of most mill executives to respect the law of supply and demand, affords a real basis for confidence in the future of the industry.

B. B. Gossett, who delivered banquet address at annual meeting of S.T.A.

It is most deplorable, but we still have in the industry a few obstinate individualists who continue unashamed in pursuing a policy of unenlightened selfishness by operating to capacity under any and all conditions, cutting prices when not justified, and trying generally to profit at the expense of their neighbors. None of the people I have in mind has subscribed to the 55/50 plan. Neither have they signed the declaration of policy providing for the elimination of women and minors from night work, nor have they cooperated in any way in the many constructive and meritorious plans that have been recently advanced for the general good of the industry. Most of these people are operating on schedules ranging from 120 to 130 hours per week. They are simply standing in their own light, while doing the entire industry a great deal of harm. Surely 15% of the industry can't be right and the other 85% altogether wrong. It is true that the group subscribing to such a policy is a comparatively small one, but it continues powerful enough to keep the industry in a temporary state of demoralization.

Good management, sound merchandising policies and efficient and economical manufacturing are essential to the success of our business. Recently the industry has suffered more from poor merchandising than all other agencies combined. I particularly have in mind recent activities in the gray goods markets with especial reference to print cloths. Going back only about two months ago, a careful study of the statistics will show the strongest statistical position in recent years on certain lines of gray goods. This condition was brought about by general and sustained curtailment over a period of more than a year by the so-called cooperative mills. As a result of this, combined with an unusually heavy seasonal demand during the months of February and March, many mills were able to liquidate stocks and make substantial sales running several weeks ahead at prices which gradually advanced to an average of about 1c. per yard over the year's low. It was only natural, following such a period of unusual activity, that a period of quiet should develop. Unfortunately, this came at a time when the price of raw cotton was declining. Even so, there was no good reason for a decline in the price of cotton goods. But instead of realizing this and making the best of the opportunity by taking advantage of the temporary period of lack of demand to hold prices firm and widen manufacturing margins, a great many manufacturers and their agents have unwisely pursued an opposite policy—they have been persistent in trying to force the situation by cutting prices which has resulted in the development of very little additional business; on the other hand, prices have again been forced down to the low point of the year and confidence has been badly shaken. Those who practice such unsound policies cannot be too strongly condemned. There is no permanent place in the industry for them. There is never any justification for slashing prices below cost of production.

Until a year or so ago the ascendency of the South to the forefront in cotton manufacturing had been regarded as permanent. In the light of recent developments, one cannot fail to question the permanency of our position. In many respects the South has been going backward while New England has been moving forward. Legislation, and especially taxation, has become increasingly burdensome in the South while conditions in these respects are rapidly improving in the New England States. No longer are New England mills moving South. No longer are New England textile plants being dismantled. On the other hand, New England has set her shoulder squarely to the wheel with a determination to win back the position she formerly held in the textile world. Her people are not only sympathetic but are lending active aid to this end.

In the South taxes have increased to an alarming extent. For the first time in the history of the southern branch of the industry, many of our mills are paying substantially higher taxes than their competitors in New England. According to figures submitted by B. E. Geer, until recently president of the American Cotton Manufacturers Association, the increase in the State of South Carolina, for example, has been from an average of 55c. per spindle in 1922 to an average of 78c. per spindle in 1930. In North Carolina the heavy burden came with the year 1923 and the average tax per spindle today stands at approximately 71c. A New Bedford authority on taxes was recently quoted as saying that for 1930 the average rate of taxes paid by the New Bedford mills per spindle was 52.15c. and by Fall River mills 43.96c. It will be seen that the highest of these two eastern rates is 33% below the 1930 rate in South Carolina.

It is also simply astounding, but true, that the increase in the cost of Government in the principal textile manufacturing States in the South in the last 15 years has exceeded similar increases in New England by several hundred per cent. For instance, the cost of Government in Massachusetts in the year 1928 exceeded the cost in 1915 by 93% while in the State of North Carolina the cost of Government increased 847% from 1915 to 1928 and in South Carolina the increase for the same period was 917%.

What can we do about it? I will not attempt to enter into a detailed discussion of the remedy except to urge that each one of you hereafter take a more active interest in trying to send good men to your General Assembly—men who stand steadfastly for rigid economy and a businesslike administration of the affairs of your respective States.

But it is not only a question of legislation and taxation that is disturbing. If I am correctly informed, a large percentage of the new textile machinery that has been sold in recent years has been bought by New England mills. New England is junking old, worn out and obsolete machinery and replacing it with modern up-to-date equipment.

We are not only falling behind the procession in this re-

spect, we are also dropping behind in the matter of installing more efficient methods of operation in our plants. I venture the assertion that the so-called labor extension plan, which has been the source of so much discussion and trouble in the South in recent years has, on the average, been carried much further in New England than in the general run of southern mills. Wage reductions in New England in the last year have been on the average more drastic than in the South, so I think it may be safely assumed that those mills in New England which have been revamped and rehabilitated and which are under good management, can produce goods as cheaply and in some cases more cheaply than the average southern mill.

In the last few years more than 5,000,000 spindles in this country have been dismantled. Practically all of these spindles were in New England. There are those who still firmly hold the view that at least 2,000,000 additional spindles will have to be scrapped before the industry will right itself and can be operated on a stabilized earning basis. My friends, I am not a pessimist by nature or otherwise, but I can't help but feel, with the lights now before me that the South, and not New England, may be called upon to make this tremendous sacrifice. But we must face this possible crisis with renewed courage and with a firm resolve that it shall not happen. In my judgment, the future holds even greater opportunities and promise than ever before for those of us who have the stamina, character and intelligence successfully to meet such emergencies. *We must not fail! We shall not fail!*

President Corn Recommends Reorganization of Sections

THE development of a closer relationship between the Southern Textile Association and the various manufacturers' associations was urged by President J. O. Corn, Columbia, S. C., in his annual address. Recommendation for a reorganization of the association's divisional structure to better serve the membership in the Carolinas and Georgia were submitted for consideration of the incoming officers. President Corn's address, in part, was as follows:

One of our great needs today is that we might in some way link our association into a closer relationship to the various manufacturers' associations, not that we should ask them to do more for us, but that they might be better informed as to what we are doing, and through their interest, encourage the association to greater perfection so that more concrete work may be accomplished.

The association is recognized today as one of the greatest sources of practical information, and there is no way to estimate the value in dollars and cents that every mill in the South and many in the East have benefited either directly or indirectly from these meetings.

But there is one great concern for the association at this time. And that is the fact that we are not reaching the membership of the association or, in other words, we have a large group of members who are not being benefited as they should because of the wide territory over which the membership is spread.

We have our group meetings which cover every department in manufacturing and finishing. We also have the Eastern North Carolina Division, the Alabama-Louisiana-Mississippi Division; but we have a very large territory through Georgia, South Carolina, and North Carolina, still under the original group, and this is the section that we are not serving as we should. This territory is too large and requires too much time and expense to attend the meetings.

To correct the above in some degree, I offer the following recommendations to be considered by your incoming officers:

1. That a geographical study of the membership be made.
2. Based on this study divisions be formed, not conforming to States' boundary lines, but to the best advantage of the membership involved.
3. That these divisions be under the direction of a general chairman. Each chairman to be assisted by his various sectional chairmen.
4. That the semi-annual meeting be dispensed with.
5. That instead of the semi-annual meeting, the president call a meeting of all divisional chairmen and sectional chairmen to lay plans and programs for the various sectional meetings.
6. That all dues be paid to the general secretary and that a portion of these dues be allowed to each division for its current expenses.
7. That each division be allowed to vote for general officers according to membership of the division.
8. That all general chairmen be elected by the association at its annual meeting.

I wish to take this opportunity to express my appreciation for the efficient work of our secretary. He has been zealous in his work to make the association a better one and to lend all assistance possible to the division and sectional chairmen and to your president. And to him is due a large part of the success the association has had in the last year.

Modern Times Demand Modern Men

MILL superintendents and overseers must continually improve their mental equipment to keep ahead of the game, according to Frank K. Petrea, superintendent, Swift Mfg. Co., Columbus, Ga., who delivered an inspirational message to members of the association at the Saturday morning session. His address, in part, was as follows:

During recent years, and at the present, we hear and think much about new developments in mill machinery and processes—one-process picking, long draft spinning, control of regain, high speed looms, better warp preparation, etc. These and other modern developments, we are told, are becoming essential in the fight for more efficient operation and better quality of product. We also are impressed with the absolute necessity of replacing machinery and processes which have worn out, or which have been made obsolete by refinements and new ideas and methods.

It is entirely proper that we must give our utmost attention to these things, and yet I am wondering whether many of us are not neglecting a factor equally as important to the efficient operation of our plants, and to ourselves as individuals. Are we neglecting to realize that we, ourselves, must be equipped up to the last notch with these attributes of a personal character as important in contributing to a successful mill as are those mechanical improvements which I have mentioned?

Can we stand off with an outsider's perspective, and say, that, as superintendents and overseers, we are running our jobs as well as they can be run, under the circumstances? It would be easy for any of us to say "Yes," and that answer may suffice for our own purposes, but as a matter of self-preservation, if for no other reason, hadn't we better consider seriously the thought brought out by Carl Harris in a talk before you some two years ago, that unless we keep ourselves pitched up to the demands of changing times, "we will be swept aside by the waves of other men's progress."

Getting down to cases, just what is our *attitude* with regard to our jobs? Do we impress a visitor as being too satisfied with things as they are? Do we appear to be "just getting by"? Or do we let ourselves remain contented so long as things "are going along all right"?

The formula for each one of us to use, in preventing excessive "ends down," "low production," "loom stoppages," etc., with ourselves (if I may apply familiar mill terms to individuals) may be different in each individual case, but I can emphasize to you the importance of broadening ourselves as men. One method is by reading. You and I can find no legitimate excuse for not keeping up to the minute

Frank K. Petrea, who spoke on improving mental equipment

L. R. Gilbert, who told of application of commercial standards to textiles

J. O. Corn, retiring president, S.T.A. who recommended new program

with developments in our industry, not only as they apply to our immediate needs, but those of a general nature, through the medium of the several excellent textile publications at our disposal.

In everything there are obstacles that must be overcome. The man ahead must be passed, foolish habits must be conquered, careless spending of time must be discontinued and dread of hard, monotonous work must be overcome. And above all, the fear that we may do more than we are *supposed* to do must be put aside completely. The more we read in our direct field, and about our own jobs, the more certain we can be of keeping ahead or even up, with the machines which have been so remarkably improved.

When possible we should attend all association and discussion meetings that we can, which is a privilege we have of broadening ourselves and will be found to be very helpful to each of us in our particular industry.

Commercial Standards in the Textile Industry

A CLEAR exposition of the possibilities of application of commercial standards in the textile industry was presented at the Friday morning session of the Southern Textile Association by L. R. Gilbert, of the Division of Trade Standards, U. S. Bureau of Standards. After outlining briefly the scope of the Bureau's activities, Mr. Gilbert, who is a past-president of the S.T.A. discussed specifically the Division of Trade Standards. In this connection, he said:

This division was organized in 1927 for the purpose of cooperating with those industries who want to establish nationally recognized standards of quality for their products.

The Division of Trade Standards, having a definite request for its assistance, acts first as referee to see that everybody interested gets fair treatment and consideration; second to give such advice and assistance as may be indicated from experience in other similar projects; third, to solicit and record acceptances to the standard; and fourth, to officially publish and distribute the completed work to all interested parties; all of which is done without cost to the industry.

You may also want to know how to proceed in the establishment of a commercial standard.

First, an individual company or an industrial group may request the cooperation of the Bureau of Standards in the establishment of a standard. It is not necessary that the request come from an association or other trade organization, although experince has taught us that standards sponsored by such organizations are more likely to be finally accepted than those proposed by single companies.

The proponent group will then be requested to select or formulate and propose a tentative specification as a starting point for further action. After the specification has been presented, a preliminary conference of leading members of the proponent group is called to consider the acceptability of the specification and the probable reaction of the other branches of the industry. This conference is usually held under the auspices of the National Bureau of Standards so as to admit both members and nonmembers of any trade organizations in the field.

When an understanding has been reached, the revised specification is sent to all manufacturers, distributors, and consumers in the industry for their review and comment, together with an invitation to attend a general conference or public hearing where every criticism of the specification is presented and voted on, so that the standard may represent the composite ideas of the trade.

Upon the approval and endorsement of the general conference, the specification, rules and tolerances outlined, are mimeographed and mailed to the industry for formal acceptance as the commercial standard of the industry.

Upon acceptance by a satisfactory production volume of the industry, the standard is issued as a printed booklet of the Department of Commerce and manufacturers are encouraged to apply self-certifying labels to the commodity guaranteeing the quality or measurements to conform to all requirements and tests of the commercial standard.

A vague idea of just what was necessary in a fabric for rubberizing prevailed until the industry realized the need for specifications which would cover the important points of manufacture. Accordingly they selected specifications and with the cooperation of the Bureau of Standards, are now establishing a commercial standard for cotton goods for rubber and pyroxylin coating, which covers the general requirements of these cloths. Now, when the manufacturer makes a fabric for automobile upholstery or tops, he need have no doubt about what the width, thread count, weight, tensile strength, length of cuts are; what should constitute a single and a double cut, what defects and how many of each are allowed, and what the permissible amount of sizing,

oils and injurious chemicals such as copper and manganese are.

It will probably be of interest to you to know that the Association of Cotton Textile Merchants of New York and the Textile Converter's Association have done considerable work upon specifications which later may be offered as a commercial standard for cotton gray goods. Doubtless it will be some time before the standard is ready for circulation to the industry, but work on the preparation of essential data is steadily going on.

Taking Down "No Admittance" Sign

TEXTILE mill men must pull down the "No Admittance" signs from their minds and from their plants; they must be open to all progressive ideas from whatever source; they must find a way to eliminate cutthroat merchandising. Thus was the message offered to the Southern Textile Association, at the Saturday morning session, by M. R. Vick, overseer of carding at Rosemary Mfg. Co., Roanoke Rapids, N. C. His address follows, in part:

The most successful fight I have known in my day, has been the fight the superintendents and overseers have made to improve the work in the mills of the South, largely through the S.T.A. and its allied organization. This partial victory has been won, I say partial victory, advisedly, because the end is not yet, and the fight must be continued until we are not only equal to, but ahead of the world in textile manufacturing. This fight must be carried on by properly training the operatives. We must stop our Chambers of Commerce and other civic organizations from advertising to the world cheap labor conditions, and make them state the truth as it is, that we have, when properly trained, not cheap labor but the best labor on God's earth.

We have got to pull down the "No Admittance" signs from our minds and cast all prejudices from our hearts, accept all progressive ideas from whatever source, accept them and test them, and if they prove good, stick to them; if they prove to no advantage, discard and forget them, but not until you have proved them to be worthless. Be sure of facts. To choose blindly is to probably choose wrong. Decision without facts is a delusion. Do not trust to hunches.

Now let us look a few moments at the merchandising end of the business. What is the difference in the merchandising of cotton textiles today and what they were thirty years ago? If the merchandising end has not kept up in improvement with the manufacturing end, why not? Is it because we had our merchandising perfected in the beginning of this century. I do not think so, but I do think (right or wrong in my thoughts) that the merchandising end has exerted more energy trying, and almost succeeding, in cutting everybody else's throat.

Pull your "No Admittance" sign from your out of date ideas and let the world know what you have to sell and where they can get it.

This great Southland of ours now is about covered with a perfect network of good roads. When travelers come to a nice town, they find by the side of the road signs reading, "Welcome to our Town"; when they drive up to a service station to have a car overhauled and have an hour or so to spend, they ask the mechanic where "we can go to see what you have in town." Service men say, "We have a cotton mill here making beautiful goods but they have 'No Admittance' on their doors and it is doubtful if you could get in." Now instead of that "No Admittance" sign suppose you had some sign reading, "Welcome, apply at office for a guide." This guide shows them the many processes the material has to go through to be made into a finished product.

Now in closing, I will say that I have tried to show you superintendents and overseers that you have got to keep abreast of the times. I have tried to show that cut-throat merchandising has about ruined everybody in the business. Unless this is stopped, what are we leading to? Just this, I am almost afraid to mention it but it will come and come soon for the smaller plants that are now trying to operate as individuals. They will have to merge. We don't like that word, and we don't like that idea but neither do we like being starved.

Background of Southern Textiles

THE heritage enjoyed by the southern textile industry was traced by John A. McFalls, superintendent of the Ranlo Mfg. Co., Gastonia, N. C., at the Friday morning session of the Southern Textile Association. After outlining its crude beginnings, and the struggle to overcome the devastating effects of the War between the States, Mr. McFalls described the real beginnings of the great industry of today. He said, in part:

As the product of southern mills continued to find favor in newly established markets, the manufactures of the South unconsciously determined upon a progressive and intensive program of manufacturing which was destined not only to meet the possibilities of hardest competitors, but to reach beyond their highest expectation.

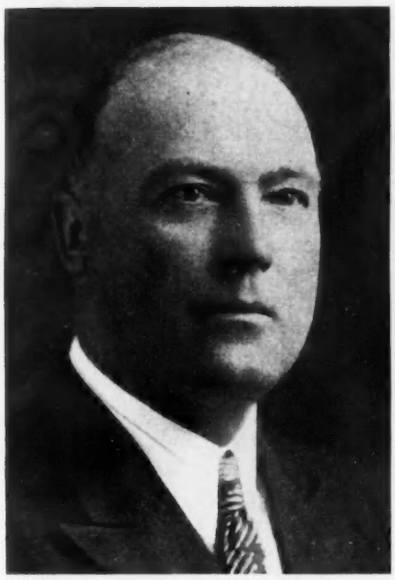
Moved on by faith and hope toward the pinnacle of his attainments in manufacturing equipment and with that great attribute of love for his operatives burning within him, this cotton mill owner of the South more than a decade ago became the exponent of the greatest humanitarian endeavor of all time. By his efforts and monetary assistance, churches, schools, play ground equipment, welfare department buildings equipped with medicinal aid, clean and wholesome amusements have been established as molders of character and agencies of human uplift; manned by experts along the several lines without cost to the operatives. The hours of labor have been materially reduced on different occasions at his own suggestion and modernly built and equipped homes are furnished the operatives at the astounding low rate of 25c. to 50c. a week per room with electric lights and fresh running water without cost.

With all this having been made possible by the mill owners of the south the superintendents and their subordinates have not sat idly by, but, being animated with a perspicacious insight commensurate to the responsibilities this new day would bring, a few of them began to rub their heads together in order to devise ways and means by which they might enlarge their capabilities as executives and become more competent as manufacturers of cotton fabrics; from this small beginning, slightly more than twenty years ago, there has sprung up the great Southern Textile Association which is to my way of thinking the greatest organization of its kind ever devised by man.

Effective Cooperation Urged by L. E. Wooten

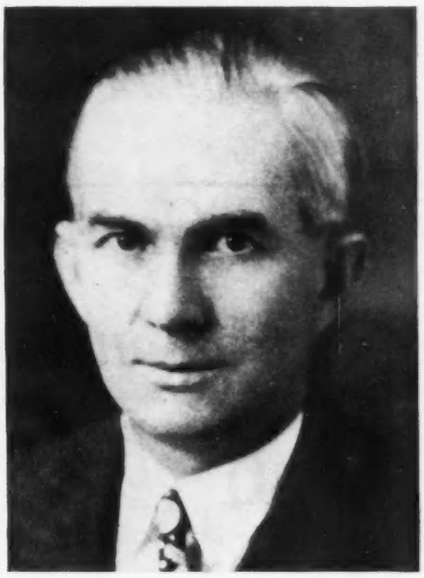
MILLS are neglecting a fertile source of helpful ideas, if they fail to cooperate with salesmen calling on them to the extent of granting satisfactory interviews, according to L. E. Wooten, vice-president Lestershire Spool & Mfg. Co., Charlotte, N. C., who spoke at the Friday morning session. His address, in part, was as follows:

What does the word "Cooperation" mean? Mr. Webster tells us that it means: "The act of working jointly together." There are two types of cooperation constantly before us. One that we might call "passive," including those people who do merely that work required of them; the other which we might call "hearty" cooperation and in this class comes the men who not only do their work well



John A. McFalls, who traced the inspiring heritage of the southern industry

L. E. Wooten who stressed cooperation in speech before S.T.A. meeting



Walter C. Taylor, secretary-treasurer, S.T.A.

but are constantly striving to help their co-workers improve their efforts.

Then how do we know that we are cooperating? One of the best ways to find out for ourselves is to rub elbows with our fellowmen as often and in as many different ways as we possibly can, and I know of no better way for the textile men and the travelling men to find out how to cooperate with one another than to attend the meetings of the Southern Textile Association. You not only find out at these meetings whether you are cooperating with one another or not, you also find out whether you are cooperating with the Association.

The salesman, the buyer and the user should cooperate with one another 100%. Every factory that dots this country today is there on account of salesmen. If someone was not selling the product from that factory it could not exist. There is a great deal of difference between a salesman and an ordertaker. There is also a great deal of difference between a buyer and an order-giver. The salesman is a man who should be a creator with not only new ideas but helpful ideas. Generally a salesman is talking not only from his own experience but the experience of many others, and experience, though sometimes costly, is, as we all know, the basis for our existence.

The man who never has time to give the salesman a chance to either show or explain his wares, believing that he already knows everything about it, is only fooling himself; and does not take into consideration that somewhere possibly at that very moment salesmen are calling on people to sell the product which he is making, and if they did not get an opportunity to show their wares, he would soon be out of orders. The man who gives a salesman a deaf ear, a how-do-you-do and good-bye all at the same time, may be getting rid of a man who made a specific call for the purpose of cooperating in a helpful way in more ways than one.

There are no doubt many travelling men who bore or prove themselves to be uninteresting to some people, as we all have our likes and dislikes, however you are not buying the man, but what he has for sale.

I think it would be appropriate at this time to urge that mill executives, employees and salesmen should cooperate with the Southern Textile Association. I have been attending these Association meetings, as a number of you know, for quite some time, and I never come to one of the meetings with an idea of taking any orders, but I do come with the honest intention of cooperating heartily with you to make this a larger and more constructive Association.

Hampton Co. and Textiles, Inc., in Alliance

ALLIANCE between the Hampton Co., mercerizers, and Textiles, Inc., the recent combed yarn spinners merger, has been effected through the incorporation of Hampton Textiles, Inc. Charter was granted at Raleigh, N. C., on June 17. The incorporators were Thomas McConnell and R. B. King, president and secretary respectively of the Hampton Co., Easthampton, Mass., together with the following officers of Textiles, Inc.: A. G. Myers, president, J. H. Separk, first vice-president; J. L. Gray and C. C. Armstrong, vice-presidents; R. G. Rankin, secretary-treasurer; A. K. Winget, member of the board.

This development represents an important affiliation of interests which, in a large modern plant located in Gaston County, N. C., will manufacture mercerized and finished yarns and other materials for the textile trade. The plant will operate under the combined supervision of the present Hampton Co. executives and those of Textiles, Inc., who will bring to it the advantages of long experience and high reputation, in the finishing of yarn and in the spinning of it, respectively.

It is understood that Hampton will erect the Gaston County mercerizing plant in the near future. Judging by the size of the spinning units of the affiliation, this new plant will be of noteworthy capacity.

The Hampton Co. will continue the operation of its present eastern plant at Easthampton, Mass., which is reported now running at normal capacity.

YARN MERCHANDISING—TO

Trade Comments on Problems of

Yarn Merchandising

Seventh Article of Series

◆*With the thought that a free interchange of ideas will be of benefit to all who are studying the problems of yarn merchandising, a few of the comments of representative men in the industry are presented herewith. While such comments represent individual views, they serve, by bringing out different angles, to illumine the whole picture and to accentuate the basic problems. Further individual expressions will follow later in the series and the editors of* TEXTILE WORLD *would be glad to receive comments from anyone in the trade who has an idea or a suggestion to offer.*

Sales Expense Important

REFERRING to the interesting discussion in your columns during the last few months regarding the merits and de-merits of the various methods of selling cotton yarn, there are undoubtedly defects in the operation of each of the methods employed at present, but we believe there is a definite need for commission houses in the cotton yarn trade and that a well organized commission house can give better service to a spinner and customer than can be given by a broker.

In many instances, commission houses can, and do, give to customers service on deliveries and accommodation on credit which direct sellers are not in a position to give. We believe that most yarn buyers are not averse to paying a price for yarn that includes a legitimate selling cost and also a legitimate profit to the spinner. The history of the textile industry shows that manufacturers of textile goods of all kinds have usually made money when they were forced to pay prices for yarn that showed spinners a profit. In other words, business is always more satisfactory when the market is in favor of the seller rather than controlled by the buyer.

We all must recognize that the question of quality on any one number of yarn must largely enter into the price quoted, but for yarn of equal quality, there is undoubtedly too much of a variation in the price quoted to consumers. In many instances this variation is caused by spinners who sell through brokers or direct, giving the buyer the benefit of the difference between a commission and a brokerage, or giving the buyer all of the commission, in trying to influence the order in his direction. Any spinner who neglects to include the full commission (5%) as a part of his selling cost, irrespective of whether he sells direct or through a broker, is undoubtedly making a serious mistake. We have no criticism for any spinner who prefers to sell direct, and who is able to do so, but we think any spinner who sells direct and does not figure his selling cost at 5% takes an unfair and unwarranted advantage over spinners who sell through commission houses.

If he is clever enough to sell his yarn and guarantee credits for less than 5%, he should try to save the difference between his selling cost and the 5%. One of the main arguments in favor of direct selling, is alleged saving of the commission, but we contend that few, if any, of the direct sellers, have been able to save the commission. Any spinner selling direct who does not save the commission defeats his main purpose in selling direct.

In a recent failure a direct seller has been caught in a credit loss that is fully as large as any commissions he could save by direct selling for a period of at least one year. Any direct seller who overlooks the credit risk, and fails to provide for it in his selling cost, is making a mistake that may prove very costly.

The credit risk in the textile business today is a very real and ever-present element of cost to the seller. We think a long step toward stabilizing prices on cotton yarn could be made if all spinners who sell through brokers, or direct, would figure their selling costs as 5%, as other spinners do.

We hear complaints that commission houses occasionally cut commissions and thus name prices lower than the spinner asks, but this situation can easily be controlled by spinners insisting that no price cutting may be done without their consent. Many mills are now controlling this by agreement with the commission houses handling their yarn.

FRED A. RAKESTRAW,
Hyde-Rakestraw Co.

Advises Technical Help to Customer —or Auctions

THERE is nothing basically wrong with present methods of selling yarns. It might be possible to develop entirely new methods which would prove more economical, but, for the present at leat, the problem is largely the individual one of doing a better job under the existing system.

I believe that there is the most room for improvement in working with the customer along technical and semi-technical lines. The salesman should be interested in going behind the surface details of an inquiry, or order,

REPLACE YARN PEDDLING

and in finding out more about the requirements of the customer and the possibilities represented by the customer's plant and equipment. It is not easy to secure such knowledge, for some yarn consumers may resent anything which in any way resembles prying into their business, but here is one point at least where modern conditions work to the benefit of the salesman, for modern conditions make it advantageous for the consumer to cooperate with the salesman.

In the old days it was possible for the consumer of yarns to sit back and say what he was going to manufacture in the next six months, and, in all probability, the product changed little from year to year. There was little need to play around with anything new and the consumer needed little outside assistance. Under modern conditions, however, there are few yarn consumers who can count on turning out a standardized article month after month. It is no longer a question of merely producing, but rather a problem of utilizing every means of producing something which will sell. With styles and demand changing rapidly, the yarn consumer must be ever on the alert and must fortify his own knowledge with the knowledge of others if he is to manufacture a product which will meet, or create, demand.

There is, then, an opportunity for yarn salesmen to capitalize the situation. While some consumers still believe that they have ample resources of their own, the wise ones are ever on the alert for any lead, and it is logical to suppose that the yarn salesman should be a source of suggestions and information on what constitutes the consumer's raw material. The important point is that the yarn salesman, to fill such a rôle, must know what he is talking about. With so many fibers, combinations of fibers, twists, etc., there is a wide field for the salesman to develop his knowledge to the point where he can be of real assistance to the buyer. This does not mean, of course, that the salesman will run to one manufacturer after another telling what the other is doing, but rather that he can cooperate with the buyer and offer the manufacturing facilities of the yarn mill, and his knowledge and experience to the end that the buyer can develop new constructions, new fabrics, or increase efficiency on current products.

It is to the advantage of the salesman to do his selling along other lines than price, and such selling can also be of considerable advantage to the buyer. I believe that there is room for more selling along the constructive lines of cooperation with the consumer and I believe that alert consumers welcome the salesman who knows something more than price and delivery. In the last analysis it is up to the individual salesman to make himself of value to the consumer.

On the subject of basic merchandising methods, it is possible that a more economical method might be devised. I would be interested to see the method of auctions applied to yarns. In any commodity where there is an exchange, such as cotton or wheat, prices are practically set by a process of auction. There would be difficulties in applying such a plan to yarn, but I believe the difficulties could be overcome and selling cost could be decreased. If a large yarn house with an established reputation should say that here is the production for six months and if you want any of it you will have to bid competitively, the results might be interesting. Such a plan will probably never come to pass and it would work best where supply and demand are more nearly balanced, but it has possibilities. R. J. MATHEWSON.
Standard-Coosa-Thatcher Co.

More Thought in Quoting Prices

THE proper merchandising of cotton yarns is a difficult task today and there is no use blinding yourself to the fact that it will remain a difficult task as long as the underlying condition of excess productive capacity scattered among many plants remains as it is. There is no plan or suggestion which can automatically solve the problems. However, there is always room for improvement and it is my personal belief that more thinking along certain lines might be helpful.

It might be suggested that the mill give more thought to quoting prices in the first place, and then hold out more firmly for the quoted prices. Many mills first quote a price they would like to get, but which a real knowledge of the market and underlying conditions should convince them is impossible. This price put out as a "feeler" sometimes loses them the inquiry and, at other times, results in an offer just as much out of line. Many buyers object to the workings of this system, contending it places them in the rôle of both buyer and seller.

A commodity such as cotton yarns, whose basic cost is so largely dependent upon a fluctuating raw material will always be a "trading" proportion. Intelligent price ideas formed by the mills, only after due consideration of all the factors entering into manufacture and sale, would go a long way toward elimination of the objectionable dickering of which many complain. A mill with a quality product of recognized merit should have no hesitancy in quoting a fair price and in then turning a deaf ear to all requests for concessions. This would, in turn, earn respect for their quotations.

Another important thing, I believe, is that mills should sell direct, confine the account, or make some arrangement by which every Tom, Dick and Harry does not sell the yarn.

Many mills think a multiplicity of sales connections insures them the receipt of all inquiries afloat. Were this true, the confusion of effort and price would destroy the value of the inquiry. It seems to me far better to have one responsible and reputable organization with the proper personnel to maintain regular contact with the customer. Only close attention and good service to both mill and customer would justify the existence of such an organization, therefore it could be depended upon to get the best results.

J. W. FERGUSON,
Johnston Mills Co.

Some samples of Silk Shetland. With the exception of the scarves, these fabrics are in Japanese designs for use with Japanese style dresses (kimonos). Silk Shetland is also made in solid colors or in any color mixture, shade, or design.

Japanese Manufacturer Creates New Wool-Like Fabric

"Silk Shetland"

By Yoshio Nitobe

Editor, The Japan Times, Tokyo

JAPAN, in common with the rest of the world, has undergone a severe period of depression. How to increase the wealth of the country has been the thought uppermost in the minds of statesmen, industrialists and businessmen. Since the natural resources of the country have pretty well been exploited, attention has been turned to the problem of augmenting exports on the one hand, and decreasing imports on the other. Thus only, it was thought, could Japan retain her supply of gold reserve and continue her financial stability.

In this situation the problem of creating new products which might find a market abroad has received close attention. Since silk is the main export asset of the country, new ways of utilizing it and its by-products have been studied. The utilization of the cocoon larvae for oil and also for chicken feed has been investigated. Most noteworthy, however, of "new products" made from silk, or more properly waste silk, has been the creation of what is now being manufactured in Japan as "Silk Shetland," a fabric which has caused a sensation in its home market and which is suggestive of a new field for silk use.

Devised by the Totaro Aoki

A short distance from Tokyo, in the town of Kiryu, Gumma Prefecture, Totaro Aoki, one of the leading manufacturers of silk fabrics in Japan, has for years been investigating the possibilities of new fabrics and the machinery with which to make them. Mr. Aoki is the owner and executive head of a large concern, the Awoto Silk Textile Mills, which for generations has produced some of the finest fabrics in Japan, and he is gaining a reputation as an industrial benefactor, as well as an inventor.

The recent creation of Silk Shetland and the earlier production of Silk Polla were the result of an idea to which Mr. Aoki clung tenaciously in the face of many disappointments. His aim has been to manufacture a fabric purely from silk or waste silk, which would be suitable for uses hitherto monopolized by fabrics of wool or other fibers. Thus, after two years' research and experimentation, Mr. Aoki turned out the cloth known as Silk Polla, in 1924. This was admirable for making summer and tropical suitings. After an intervening five years of investigation, the inventor created Silk Shetland, suitable for use in spring, summer and autumn clothing. This creation was announced in the autumn of 1930, when a four-day display of Silk Shetland took place at the great Mitsukoshi Department Store (owned by the Mitsui interests) in Tokyo. This show was held under the auspices of the Textile Guild of Kiryu with the support of the Department of Industry and Commerce, the Department of Agriculture and Forestry, the Central Silk Association, and the Dai Nippon Silk Industry Association.

For three days from Feb. 2, 1931, Mr. Aoki held another exhibition at the Industrial Club in Tokyo. This exhibition was held under the joint auspices of the Great Japan Textile Association, which is headed by Viscount Kentaro Kaneko, of the Textile Guild of Kiryu, and of the Takashimaya Department Store. Members of the Cabinet, leading industrialists, bankers, and mem-

bers of foreign diplomatic and consular bodies visited the show and took much interest in Silk Shetland for which they saw possibilities of demand in their own countries.

When Mr. Aoki launched on his experiments to manufacture a cloth from silk which would be suitable for western style suitings, he found that it would be impossible to do so economically if he used first grade silk yarns. He therefore turned his attention to utilization of waste silk, and turned out his Silk Polla, for which he received a patent. Silk Polla, however, was a rather hard weave—adapted for use in hot weather. Mr. Aoki set out, therefore, to create a fabric which would be softer, with more body and the elasticity and feel of a woolen fabric. Despite the fact that it has generally been accepted that silk does not make a suitable material for men's and women's suits hitherto made of woolen cloth, Mr. Aoki's special process has turned out a material which may soon prove popular for such purposes. The size of silk yarn which Mr. Aoki found most suitable for making such cloth is between 50 and 100 deniers. The yarn is of several plies, with one slack strand making small loops. Elasticity, body and softness of Silk Shetland, as well as admirable wearing qualities, are based on the loose twisting.

Totaro Aoki, inventor and manufacturer of Silk Shetland and of Silk Polla, used in making foreign type suitings, at his home in Kiryu. Mr. Aoki prefers, in his home surroundings, the atmosphere of old Japan.

Characteristics

Some of the uses and advantages of the fabric may be summarized as follows:

Silk Polla and Silk Shetland are absolutely free from possible damage by insects or worms.

There is no shrinkage.

Because of the loose basket weave, these fabrics are cool in summer while, at the same time, the body and softness of Silk Shetland assure warmth in cooler weather.

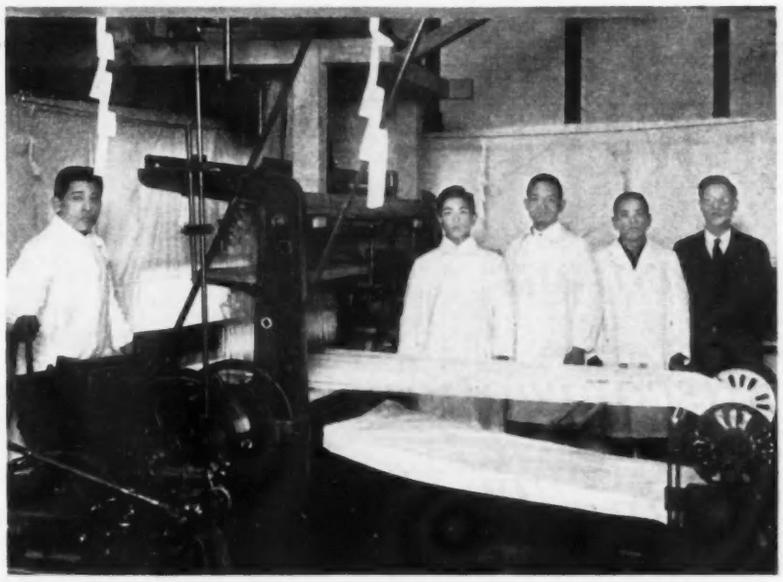
These fabrics have excellent durability.

Refined clothing of good taste may be made from them, since they are not shiny but have the softness and dull finish of wollens, combined with the richness and the appearance of quality and style associated with silk.

Silk Polla makes admirable material for men's summer caps.

Silk Shetland scarves, which have found a considerable demand in Paris, are made in any design or color and have all the elasticity of wool with softness of silk. The scarves may be made in white and designs may be printed on them. They are unusually attractive for sports wear.

Silk Polla and Silk Shetland are suitable for motor car and furniture upholstering and for curtain material.



Almost a sacred process! In making the Silk Shetland for the Emperor's use, Mr. Aoki had one of the looms purified by Shinto priests who hung up sacred "gohei" papers from a straw rope, while the workers had to bathe continually and wear white clothes. Although most of the weaving is done by women, no woman, due to ancient custom, is permitted to take part in making an article for the Emperor's use.

They are already being extensively used in Japan for making suits, skirts, overcoats for both men and women.

Silk Shetland in black makes a comfortable and good-looking morning coat for warm weather or spring wear, and dinner jackets made of the same material are effective.

The price of Silk Polla ranges in Japan, ex factory, at 7 yen per yard of 29 inches width. Silk Shetland runs 6 to 8 yen per yard, ex factory, width 29 inches. The weight of the silk in a yard of Silk Polla is between 37 and 42 momme, while that in a yard of Silk Shetland is between 37 and 70 momme. (1 momme = 0.1325 ounce.)

Japan's Costume Fabrics Changing

Mr. Aoki's attention was turned toward the manufacture of silk fabrics suitable for western or occidental style suitings because of the change in customs and habits now taking place in Japan—due to the rapid modernization of the country. Thus, men who formerly wore Japanese kimono are now giving up their native garb and wearing foreign clothing. This has been necessitated both by the greater convenience of foreign clothes as compared to the kimono with its skirt and long sleeves, and also on the grounds of greater economy, since the average office worker has not an income sufficient to keep up a dual, i.e., occidental and oriental, standard of living. This tendency naturally made itself felt in the declining demand for the "Omeshi" silk cloth which Mr. Aoki's firm has been turning out for generations and which is used in high-grade kimonos. Seeing the handwriting on the wall, Mr. Aoki turned his attention to the investigations above outlined. His activity received renewed impetus due to the national movement to use, wherever possible, domestic rather than imported products as an economic and financial necessity in this day of depression.

That Mr. Aoki's efforts in this regard have received recognition is evidenced by the fact that he was permitted to present a bolt of Silk Shetland to their majesties, the Emperor and Empress, who made from it suits of foreign type clothes.

Much of the finest silk cloth in Japan is made at the homes of workers who *(continued on page 70)*

TWIST—

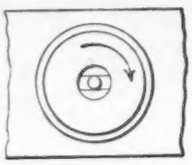


Fig. 1. Spindle traveling clockwise produces reverse twist

Prevalent Misconceptions in the Sewing-Thread Trade

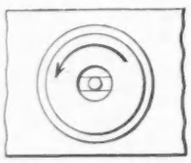


Fig. 2. Spindle traveling counter-clockwise produces regular twist

By Robert Wilson

◆ *Our Questions and Answers Department has lately registered the fact that confusion has again arisen (or perhaps it is more accurate to say that a dormant chaotic state has again awakened) in the cotton sewing-thread trade over that old trouble-maker, twist—its direction, its multipliers, and its balance. The accompanying article has been written to help clarify these matters.*

THE amount of twist, or the turns per inch, in single yarns for cotton sewing thread is governed by various factors, and among them are the staple length and character—whether silky and fine or coarse and rough—and the desired ply and count. These factors are important, but to them must in all probability be added the specifications of the customer, who—rightly or wrongly—thinks he knows better than the spinner what twist he requires. There are also questions as to whether the yarn is double-carded or merely carded, and whether it is lightly combed or heavily combed. In addition to the foregoing considerations, certain standards of strength and elasticity are demanded. There are converters, incidentally, who do their own twisting and who desire a certain strength in the single yarn irrespective of whether the single supplied them may give a better ply-yarn break than would the yarn they specify.

A discussion of all the individual points and factors bearing on this subject would require more space than the limit of one article permits. While it may be impossible for the spinner or thread manufacturer to consider many of these items, the fact that he cannot or does not causes inexplicable trouble to crop up occasionally.

The manufacturer, in producing a thread with the strength required for the purposes for which it is intended, knows that it must feel smooth and firm and have a good appearance, free from slubs, neps, corkscrew, single ends, and all the other ills that thread is heir to. Its twist must balance.

It would appear rather unnecessary to remark that twist can be produced in only two directions, left and right; but when a thread manufacturer orders a left twist from a spinning mill with which he has not previously done business, he may actually receive a right twist. That is bad enough; but when he writes the spinner and receives a reply that he got what he asked for and the spinner will not take it back, that's worse.

Direction of Twist

For these two directions we have various names, and for the sake of clarity I am listing them in two columns, each indicating more or less a direction of twist. Just where and why these various terms originated is hard to say, but as all are used in England today, while some are unknown here, we can be excused for believing that there is where the trouble started.

Right	Left
Regular	Reverse
Warp	Weft
Reverse doubling weft	Doubling weft
Anti-clockwise	Clockwise
Negative	Twist

In the sewing-thread trade right and left twists are clearly understood; but what the thread trade calls left, the cloth or weaving trade calls right, and vice versa. And this condition of affairs is likely to remain with us, particularly as the American Society for Testing Materials, in its specifications "D180-27," states:

> *"Twist, Direction of*—In the case of yarn or cord, the yarn or cord has right-hand or regular twist if, when it is held vertically, the spirals or twists are seen to incline upward in a right-hand direction, and has left-hand or reverse twist when the spirals or twists are seen to incline upward in a left-hand direction."

Now, that's perfectly clear to anybody until he reads immediately under it:

> "Note:—Attention is called to the fact that this definition of twist is opposite to that used in sewing-thread manufacture."

After reading that, it would seem that all hope of an understanding between thread and cloth men might as well be abandoned; for, since there are only two directions, this specification fixes no standard. Only one course is clear—we must send a sample with the order, marked "Sample for direction of twist." In place of standardizing, it would seem that "D180-27," by pairing "right" with "regular" and "left" with "reverse," had closed the only avenue to common understanding.

All spinners supplying yarn regularly to the thread trade understand that when a thread manufacturer orders a "reverse three-ply" he wants a thread twisted left in thread language. An order for a "regular two-ply" would imply just the opposite. "D180-27" would clear the spinner in court, however, no matter what he supplied.

"Warp" and "weft" would not be clear; and doubling weft" and "reverse doubling weft," while they would admit of little error across the water, would puzzle.

"Clockwise" and "anti-clockwise" (or "counter-clockwise") should be understood, because they refer to the direction in which the spindles turn.

A reverse-twist three-ply thread would be twisted on a spindle revolving clockwise (Fig. 1): and, as the single yarn for this would necessarily be twisted in an opposite direction, the ring-frame spindle would travel counter-clockwise (Fig. 2). The use of these terms is seldom met with here.

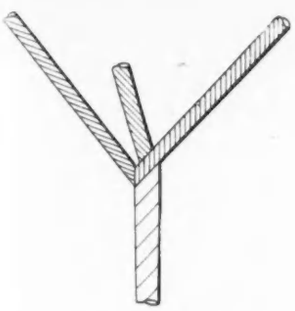


Fig. 3. Direction of twist in a reverse three-ply sewing thread. Spinning twist is in opposite direction to ply twist.

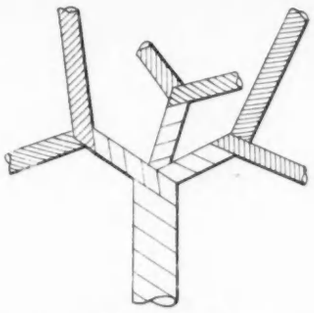


Fig. 4. Direction of twist in a regular six-cord sewing thread. Spinning twist is in same direction as two-ply twist.

It would seem, therefore, in view of the foregoing, that the only terms cloth and sewing-thread men will agree on are "reverse" and "regular"; and this is becoming more noticeable as more yarn mills are going into spinning and twisting for the sewing-thread trade.

Briefly, then, "reverse" means a thread spun and twisted in the direction that 98% of ordinary sewing three-cords are spun and twisted—the first twist right-hand to the thread man and left to the weaver, and the ply twist left to the thread man and right to the weaver. "Regular" is the opposite—the direction in which a domestic six-cord sewing thread is twisted. See Figs. 3 and 4. Specific threads will be discussed in more detail later.

Theoretically speaking, if a length of 24 in. or so, drawn off a spool or other package from the side and allowed to hang in a loop, will not twist on itself, the thread is a balanced one.

If the package happens to be a newly doffed wet-twister spool, only a soft ply twist will pass this test. If it is a dry-twister spool, the yarn will require still less twist. But if these same threads are bleached, dyed, or polished, they will stand upwards of 10% more twist and still balance. Therefore, in order to attain this balance in all threads, the twister must know in advance what form the thread is to be used in and must govern himself accordingly.

Twisting Specifications

Twisting requisitions generally are expressed in so many times the square root of the count for both single and ply yarns; and here again so many factors enter that there are no hard and fast rules, and the thread designer must be guided by experience.

Although this method of specifying twist is well known, it too has its variations, and the following remarks may be helpful. The old basic standard twists for a sewing three-ply, made from $1\frac{3}{8}$-in. staple, were $3\frac{1}{2}$ times the square root of the count in the single and $5\frac{1}{2}$ in the ply. This is to say that a 36/3 would have a single twist calculated as follows:

$$\begin{aligned}\text{Single twist} &= 3\tfrac{1}{2} \times \sqrt{36} \\ &= 3\tfrac{1}{2} \times 6 \\ &= 21 \text{ turns.}\end{aligned}$$

Then the ply count 36/3 is reduced to its equivalent in single yarn, or $36 \div 3 = 12$.

$$\begin{aligned}\text{Ply twist} &= 5\tfrac{1}{2} \times \sqrt{12} \\ &= 5\tfrac{1}{2} \times 3.4641 \\ &= 19.05 \text{ turns.}\end{aligned}$$

Thus the resultant thread would have 19 turns per inch in the ply twist but only a scant two turns per inch remaining in the single, because for each turn inserted by the twisting spindle one turn would come out of the single—disregarding the amount of contraction, which almost equalizes itself in three-ply. Such a thread, if processed, bleached, and wound on a spool, would balance; because, even if nothing else set the twist, the pressure of the spool-winding guide would do so. But, if this thread were to be cone wound in the gray unbleached state and delivered overhead from the cone, it would be likely to kink in the sewing tensions and cause breakage. Therefore, in order to balance it, less twist would be given in the ply—or perhaps more in the single.

Raising the single twist to 4 times the square and reducing the ply to $5\frac{1}{4}$ would give a better balance. Incidentally, this was the twist supplied by a mill which once had a wide reputation for the excellency of its thread yarns. The actual turns per inch in a 36/3 with this formula would be as follows:

$$\begin{aligned}\text{Single twist} &= 4 \times \sqrt{36} \\ &= 4 \times 6 \\ &= 24 \text{ turns.}\end{aligned}$$

$$\begin{aligned}\text{Ply twist} &= 5\tfrac{1}{4} \times \sqrt{12} \\ &= 5\tfrac{1}{4} \times 3.4641 \\ &= 18.18 \text{ turns.}\end{aligned}$$

This leaves 5.8 turns in the single.

One object of twist is to unite the fibers into a cohesive mass, but a twist of the character just described is on the border of departing from that principle. If the thread were embedded in paraffin wax, cut transversely, and viewed under the microscope, it would appear to be composed of three distinct threads. Compare Figs. 5 and 6 for illustration of this.

Fig. 5

Fig. 6

Exaggerated diagrams of transverse sections of threads made from hard-twisted (Fig. 5) and medium twisted (Fig. 6) singles.

If the single twist were further increased, the thread would commence to show weakness, because instead of all the cotton fibers taking a pulling strain together, they would really take it in three units. If, through any imperfection in doubling or twisting, one ply were pulled tighter than the others, that ply would give way first. Furthermore, especially in package dyeing, thorough penetration is more difficult in the case of a thread made from a hard twisted single, imperfect dyeing resulting at times. This fault is even more noticeable in the dressing or polishing process, because the size will not penetrate and the finished thread will not show a satisfactory increase in strength. The logical course to follow, then, in improving the balance is to reduce the ply twist, even if it does lower the strength a trifle. If a gray yarn is inclined to be too lively, boiling out will help set the twist and alleviate the trouble.

Modifications Necessary

For two- and four-ply yarns the formula is artificially adjusted a little, even though it is largely self-adjusting, inasmuch as the square root of a 36/2 (18) indicates a finer thread than does the square root of a 36/4 (9). A 36/2 is half the weight of a 36/4 and therefore requires more turns per inch.

If we again use the old formula of $3\frac{1}{2}$ in the single and $5\frac{1}{2}$ in the two-ply, the following will result:

$$\begin{aligned}\text{Single twist} &= 3\tfrac{1}{2} \times \sqrt{36} \\ &= 3\tfrac{1}{2} \times 6 \\ &= 21 \text{ turns.}\end{aligned}$$

$$\begin{aligned}\text{Ply twist} &= 5\tfrac{1}{2} \times \sqrt{36/2} \\ &= 5\tfrac{1}{2} \times \sqrt{18} \\ &= 5\tfrac{1}{2} \times 4.2426 \\ &= 23.33 \text{ turns.}\end{aligned}$$

This takes out all the twist in the single and throws the thread into twist on twist, both being in the same direction. This is not a desirable condition, and requires additional twist in the single, say 3.75 times, and a reduction to 4.75 times in the ply, or *(continued on page 35)*

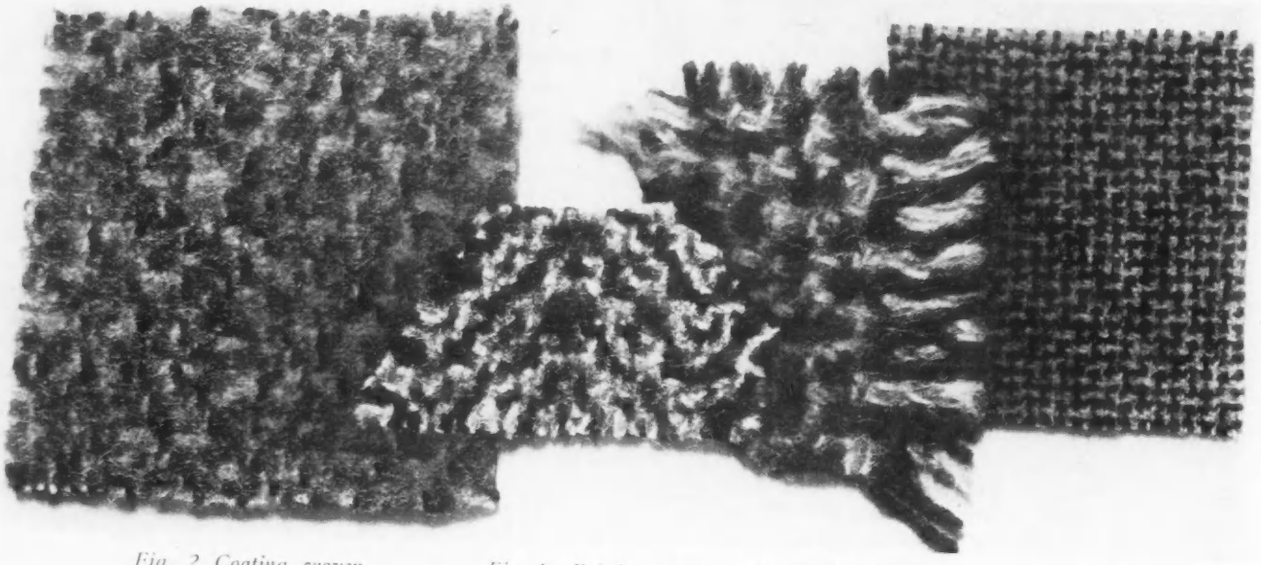


Fig. 2. Coating woven according to Fig. 1

Fig. 4. Fabric woven according to Fig. 3

Fig. 6. Fabric woven according to Fig. 5

Fig. 10. Fabric woven according to Fig. 9

Weaves for Overcoatings, Tweeds, and Cassimeres

By George R. Stevens

FIG. 1 is a weave giving great scope to the expert colorist for producing exceedingly rich color combinations. This pattern, as noted on the draft, is drawn in two threads as one; that is, two threads are drawn in on each harness throughout the draft pattern —not two threads in one heddle, but in separate heddles. A fabric woven according to Fig. 1 is shown in Fig. 2.

Laid Twist

The filling is in two colors of yarn entwined together in the process of rewinding on a bobbin winder. It is not really twisted. Among Scotch manufacturers this entwining is known as "laid twist." In yarns which are laid together in winding, a little of the original twist of the spinning is naturally reversed during the rewinding, affording possibly "one turn" of twist in every 1½ in. This gives a mottled effect to the woven pattern. Should a designer make use of two different laid twists in harmonious contrast, he can bring out many rich and attractive colorings.

In this fabric (Fig. 2) the warp threads are dressed two white, two brownish tan. The yarns both in warp and filling may be spun to any desired size of yarn in accordance with the desired weight on the finished cloth. The yarns in this sample are figured about 1¾ run, and the cloth weight per yard is close to 34 oz. at 57 in. in width.

It may be noted here that the rewinding of the filling yarns is not to be considered an added manufacturing cost, because the doubling of the yarns reduces the picks per inch 50%. This will give a large loom production at a low weaving cost per yard.

Figs. 3 and 4 illustrate another typical Scotch coating, medium weight, black and white, dressed one black, one white. The filling is the same as the warp. It will show up quite attractively in any good contrasted color combination in 1x1 patterns, and it may be made up in block patterns by dressing the warp 1x1 for a certain number of threads and then 2x2 for an equal number. The filling is to be the same as the warp. It should be noted, however, that the size of the block pattern should be regulated by the drawing-in draft so that both the warp and filling patterns can be divided by the number of threads of draft. The block that is dressed 2x2 will naturally show an entirely different pattern from the 1x1 layout.

Use of Mock Twist

Figs. 5 and 6 illustrate a woman's coating cloth which is very handsome in the web. It is woven with twist yarns both warp and filling, but single-spun yarns could very well be used in the solid brown and the twist yarns

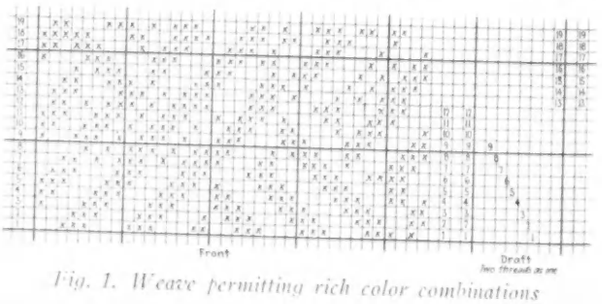


Fig. 1. Weave permitting rich color combinations

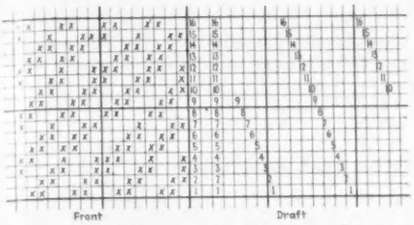


Fig. 3. Another typical Scotch Coating

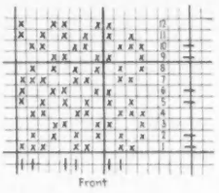


Fig. 5. Women's coating

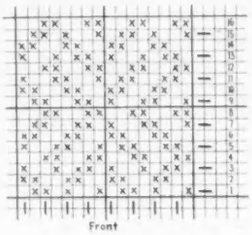


Fig. 7. Cassimere

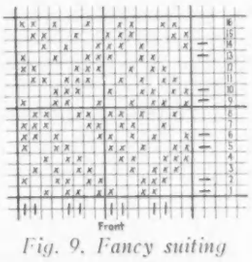


Fig. 9. Fancy suiting

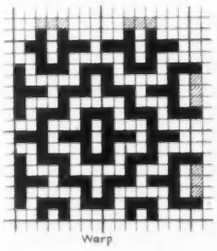


Fig. 8. Woven pattern resulting from Fig. 7

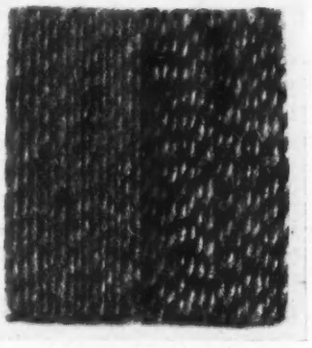


Fig. 11. Mock twist

could be made up in so-called mock-twist, which any carder can readily produce on an ordinary ring-doffer card. The roving is the regular standard roving, but it must be even, level, and free from any serious bunches.

In the spinning of mock twist, the mule must be equipped with a double set of roving drums, also standards, and hold the spools one color on the lower drum and the other on the top drum. Any mule builder can readily fit up a complete machine for such work at a very reasonable cost. The upper and lower drums are controlled by gears so that they both revolve together at the same speed, thus delivering to the feed rolls the two colors of roving at equal rates.

When making rather heavy mock twist in the finer yarns, every second spindle only is used. A spinner can thereby build up an extra-large bobbin, which has to be rewound for filling onto regular-sized filling bobbins.

This coating fabric is carried to a further degree of completion in the loom, that is, not much fulling is done, either in length or in width. The warp should be laid in the loom not over 70 in. in width—or even less, according to the quality of stock used.

The finished cloth should be soft and lofty to handle. The sample shows that a considerable percentage of good, fine mohair wool was used in the blend. The cloth is not felted; it is fulled just enough with a light soap to be sufficiently softened for a fluffy finish.

Figs. 7 and 8 in black and white represent a neat new figure or pattern for a cassimere cloth, 1x1 pattern both warp and filling. The whole pattern of 16 threads, if woven on an average cassimere layout, will not measure over $\frac{1}{3}$ in. warp and filling in the finished cloth.

Figs. 9 and 10 illustrate a very neat interlacing of a 2x2 pattern in combination with the underlying weave effect. This gives both style and character to the goods, lifting them out of a staple-cloth grade into an attractive fancy suiting. The yarns are about 4-run.

Two samples of mock twist are shown in Fig. 11. The rovings were made for regular $2\frac{1}{2}$-run cassimere yarn. The stock blend was 40% good grade of Joria wool and 60% good garnetted white $\frac{1}{4}$-blood worsted thread waste.

Twist —Prevalent Misconceptions in the Sewing Thread Trade

(Continued from page 33)

22.50 single turns and 20.14 ply turns—a better-working thread.

Four-ply also requires a modification, although the $3\frac{1}{2}$ and $5\frac{1}{2}$ formula in four-ply would give the following:

Single twist $= 3\frac{1}{2} \times \sqrt{36}$ $= 21$ turns. Ply twist $= 5\frac{1}{2} \times \sqrt{36/4}$ $= 16\frac{1}{2}$ turns.

This produces a passable thread with a fairly good construction for many purposes, but it is not so good for a silk-finished thread.

Four-ply may be taken as an example to illustrate the changes twists undergo with a change to long-stapled stock—$1\frac{3}{4}$-in. Sakellaridis, for instance. To obtain the full benefit from the longer staple, fewer turns per inch should be inserted; and some spinners will invariably, if left to their own discretion, figure on turns per staple length in place of turns per inch. As a four-ply Sakellaridis is generally used in high-grade shoe threads, and as these are mostly silk-finished, in order to obtain the greatest strength and protection from abrasion the twists must be loose enough to allow the size to penetrate freely. For this reason the formula for a polished shoe thread drops to 2.75 or 3 times the square root in the single and 4.75 to 5 in the ply, the softer single twist producing a smooth cylindrical thread, with the fibers, especially after polishing, adhering closely together.

Six-cord sewings are of different construction, the first ply twist running in the same direction as the single yarn and the last twist opposite to the first two. In sewing-thread language this has always been designated as left, left, right, and referred to as regular. The construction gives the thread a cabled feel and appearance and is sometimes called "cable" or "hawser" twist. The six-cord single is generally specified in terms of the square root of the count, but the first- and second-ply twists are usually given in turns per inch.

A 36/6 cord standard twist would run as follows:

SINGLE YARN	FIRST TWIST	SECOND TWIST
$3 \times \sqrt{36}$	36/2	36/6
18 turns	18 turns	16 turns

In the completed thread there would be 16 finishing turns, while the two-ply twist would have two turns remaining and the single yarn would have 20 turns, giving the relatively harsh feel and high elasticity peculiar to cabled threads.

In terms of multipliers times the square root of the count, in this number the first ply twist would be 4.24, and the second 6.55. These figures, however, would vary a little up and down as the cotton quality changed, it being customary to use a shorter staple in the coarse numbers, a second-quality Sakellaridis in the medium counts, and a first-quality in the fine counts. The single-twist formula would be reduced as the fibers lengthened.

Engineers Discuss Stabilization of Employment

WAGE reduction as a means of stabilizing employment was advocated by Howell Cheney, secretary of Cheney Bros., South Manchester, Conn., in a meeting of the Management Division of the American Society of Mechanical Engineers, at Hartford, Conn., June 3. Opposing opinions were advanced by a number of the engineers present, and several other remedies for irregularity of employment were suggested.

Mr. Cheney, while expressing concern for the welfare of the worker, stated that we must face the fact that wages have been reduced and are continuously to be reduced. He believes that such reduction is necessary in order to bring about a proper readjustment of values. At the same wage scale, he said, labor is actually being paid 10 to 12½% more than before the depression began, and yet a vastly greater number of people are walking the streets unemployed. By maintaining our wage scale and reducing the hours of work, we are making it necessary to hold our prices relatively high and so limit our market. Labor is willing to work at lower wages, he added; and he questioned whether we are doing right in not giving it the opportunity to do so.

Selling prices, Mr. Cheney remarked, are not affected by a reduction in the hours of work in place of a reduction in wages. A high wage scale renders competition more difficult to combat, particularly competition from low-wage foreign countries. Mr. Cheney recommended that, where possible, manufacturing processes be improved in order that more productivity may be obtained from the same labor, thus reducing labor costs without reducing wages.

Foreign Competition

R. E. Flanders, manager of Jones & Lamson Machine Co., Springfield, Vt., declared that to him any statement to the effect that we ought to reduce labor in order to meet world prices seemed a bit terrifying. We have exported not only American machines to foreign countries, but also American methods. These are now being used in competition with us, enjoying low labor costs and negligible overhead. Mr. Flanders referred particularly to such commodities as Czechoslovakian shoes and Russian wheat. He believes we should adopt scientific methods on a five-year plan for watching our industries in competition with those of foreign countries and build a tariff wall which will not exclude commodities unnecessarily, but which will accurately serve the purpose for which it is constructed.

Stabilization and Distribution

Mr. Cheney remarked that a clear distinction should be made between stabilization of employment and distribution of wages. He stated that many mills, including his own, have adopted such methods as the staggered shift, the alternating shift, the practice of discharging married women, that of keeping married men, and other policies intended to distribute the money earned by employees over the greatest number of people. Such methods have not increased the total man hours or total wages, however, and they have not stopped the downward trend of wages. He asked for opinions regarding the advisability of establishing an unemployment insurance.

In the opinion of Howard Tilson, of A. G. Spalding & Bros., Chicopee, Mass., unemployment insurance will be forced upon us by legislation if industry does not undertake to establish it. W. P. Webster, of Bridgeport, Conn., remarked that if arson were not a crime there would be no solvent fire insurance companies. The English dole makes loafers, he said, and unemployment insurance would do likewise. The dole, he added, is a very useful political armament.

Government Efforts

The sentiment of the meeting was in the main that little assistance in solving the problem of stabilization could be obtained from the government. Mr. Cheney declared that although possibly it is practical to spread around by taxation any loss experienced by the wheat growers, the same thing could not be done for silk manufacturers, for example. Although he believes it might be possible for the arbitrary fixing of values by the government to delay somewhat the action of economic laws, the benefit would not be permanent or even long effectual. Paul Doty, of the Minnesota State Board of Registration, St. Paul, Minn., however, expressed his faith in the stabilization of employment which can be effected by undertaking both public and private improvements in slack times.

For restraining the enthusiasm of industry to overproduce, Mr. Flanders suggested that a 40-hour week be adopted as standard, that 50% be added to the regular wage rate for overtime between 40 and 45 hours, and that 100% be added between 45 and 50 hours. More men will therefore be employed because extending the hours of labor of those now working will prove too expensive. Howard Tilson announced that A. G. Spalding & Bros., Chicopee, Mass., are already working on a basis similar to that proposed by Mr. Flanders, except that a 48-hour week is standard.

W. H. Rastall, Industrial Machinery Division, Department of Commerce, declared that American manufacturers need an equipment policy. The steel industry, he said, has such a policy, and rehabilitates its plants in quiet times at intervals of about sixteen years.

In the afternoon a session was held for a discussion on the selection and replacement of manufacturing equipment. The purpose of the meeting was to bring forth the variety of opinions held by the engineers on the subject in order that all factors may be considered in the developing of an A.S.M.E. formula for comparing the merits of various pieces of equipment.

Knitting with Novelty Yarn

By J. B. Relyea
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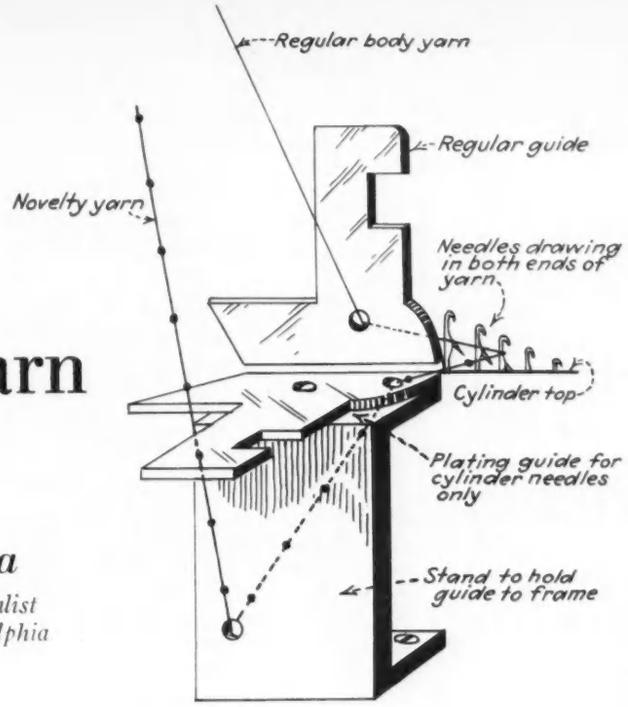

Regular body yarn
Regular guide
Novelty yarn
Needles drawing in both ends of yarn
Cylinder top
Plating guide for cylinder needles only
Stand to hold guide to frame

Fig. 1. Application of extra guide for novelty yarn

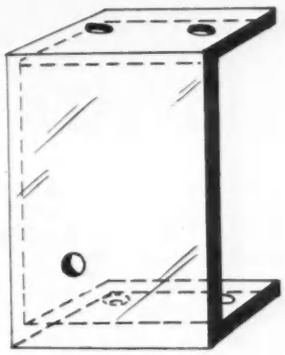


Fig. 2. Angle iron to hold guide

NOVELTY yarn can be run with excellent effect in knit goods if suitable methods are employed. Many times the decision to employ novelty yarns in high-priced ladies' sport coats has meant sleepless nights for the knitter and increased profit for the firm.

The writer was once shown a piece of spotted fabric in which a nub yarn had been so employed as to show only on the face of the fabric. The fabric had been imported and was the product of a Swiss flat machine. An analysis showed that the piece was a regular rib with 2/28s worsted foundation and a 1/20s novelty yarn having a spot or nub of worsted at points 6 in. apart. It was evident that the nub yarn had been laid in only the cylinder needles; otherwise the dial needles would have pulled some of the spots to the back.

As the mill desired to duplicate this material, a piece of wire was bent to hold an extra thread below the regular guide, where it would feed in with the regular yarn. Although this arrangement seemed to have been based on a good idea, the yarn caused trouble by jumping out.

After many trials the solution to the problem was found in the placing of an extra guide at right angles to the regular guide, as shown in Fig. 1. The extra guide was fastened to the iron angle shown in Fig. 2, which was screwed to the plate at a place which would be out of the way of the cylinder sections. The location of the extra guide was below the dial needles; and, although the dial needles touched it, they ran over it without harm. As shown in Fig. 1, the yarn was run down from the stop motion, through a porcelain eye set in the angle iron, and up through the plating hole of the guide.

The device worked perfectly; and the spots, which were black on a gray body, were placed uniformly in the fabric. No spots were wasted by going to the back. Various attempts to make the design more elaborate produced interesting effects, such as employing one end of a different color on a 12-feed machine.

Experiments were made on running a flat linen novelty yarn spotted in three different colors 2 in. apart. It was used first on all feeds, then on every other feed, but difficulty was experienced in controlling the linen yarn, even with a sewing-machine tension. One attempt to overcome the trouble consisted of running a small brass pipe from the dial cap to the spot under the dial needles where plating could be effected. A porcelain eye was employed at each end of the pipe, and the plating end was so set as nearly to touch the cylinder needles. Although this arrangement did not appreciably improve the running of the linen yarn, it did permit running roving, or a heavy end of very soft-twisted yarn. When the resulting fabric was brushed out, it appeared to be an inch thick, suitable for children's Eskimo suits.

The knitter who was responsible for the arrangement just described had also another invention to his credit. This was a sort of grease which he made himself and with which he filled all his cams when knitting light-colored yarns. He never oiled his needles. This was his great secret, and unfortunately he never disclosed it to me; but try any old grease, run on dark colors until cleanliness is achieved, and then employ the light-colored yarns. The benefit will be found in a reduction in the waste of cutters.

There are many ways for a knitting-machine mechanic to get himself into trouble, and one of the best is to file out the cuts worn in a cylinder top. These sharp cuts are always more or less uneven; and the only thing to do when they appear is to send the cylinder top back to the shop, where it may be trued by a man who knows how.

I recall one mechanic who was so afraid to ask for parts, supplies, and outside repairs that he attempted to file one of his cylinder tops. It soon became necessary to send for a trouble man. When this much-appreciated man arrived, he found plenty of trouble. He tore the machine apart and took one look at the cylinder top and had it sent to the shop. When the cylinder was returned, all stitches had been drawn down sufficiently to make up for the amount taken off the top and no difficulty was experienced in its use.

This mill encountered another difficulty some years ago. Its product proved to be full of black spots and specks, varying in size from pin points to pinheads, which could not be traced. Investigations disclosed that the specks came from a large iron plant in the vicinity, which burned large quantities of oil.

Chemical Engineering *Can Effect Marked Economies in Textile Industry*

By Richard G. Knowland

Vice-President and General Manager
Bigelow-Sanford Carpet Co., Inc.

◆*Well-advanced mechanically, the textile industry, from the viewpoint of the chemical engineer, still operates under rule-of-thumb methods. In the accompanying article which is abstracted from an address delivered at the semi-annual meeting of the American Institute of Chemical Engineers, Swampscott, Mass., June 10 to 13, and published complete in the June, 1931 issue of* Chemical & Metallurgical Engineering, *the author classifies those textile processes which are affected by chemical engineering efforts and lists some of the fields in which further scientific and engineering work are needed. Although Mr. Knowland's remarks are intended primarily to give executives in other industries an insight into operations involved in textile manufacturing, they also make specific reference to a number of mill problems, the solution of which would result in major economies.*

IN any discussion of the textile industry, one is immediately struck with the contrast which it presents to industries of modern origin. Textile methods in general were conceived many thousands of years ago and the arts of weaving and dyeing were well established centuries before technical methods or technically controlled processes became available. Unless these facts are clearly borne in mind, the industry is likely to be put in a false light when its status from a scientific and technical standpoint is compared to that of any industry developed during the last century.

General classes of textile operations which are affected by chemical engineering efforts are conveying materials, drying, humidification, evaporation, refrigeration, heat flow, and flow of liquids.

Textile materials are conveyed mechanically in pipe lines by air, on belt-type conveyors, and by tractors. In general, while the art of conveying textile materials is well enough developed, only a relatively limited number of mills are employing as economical conveying methods as they might. The cost of this operation, if fully allowed for, may be expected in an average mill to amount to about 2% of the total cost of production. In a large mill the total annual bill for conveying materials is likely to run up to $200,000.

Drying

Applications of drying may be classified as follows: (1) drying of raw or dyed fibers; (2) drying of yarn; and (3) drying of cloth. The method generally employed for drying fibers is to distribute a uniform lap of the materials over a screen which travels through a dryer housing. Automatic regulation ordinarily is not provided, although it should be. The degree of engineering skill lavished on most of these contraptions deserves little in the way of comment. One or two dryer manufacturers, however, are now furnishing dryers which afford a heat efficiency in terms of pounds of water evaporating per pound of steam of about 65 to 70%. The average raw-stock dryer, as encountered in most mills, has been found to be good for not over 45%. Therefore, a vast amount of work remains for the chemical engineer in the way of revamping the innumerable inefficient raw-stock dryers in use, or in designing more economical ones. Some of the skein dryers as developed by two manufacturers in particular are capable of extremely efficient operation. In both cases, the material is dried well under the desired regain and then re-conditioned in the final sections of the machine. It might be said that engineering principles have been recognized throughout in the design of the newer skein dryers which are commonly used for rayon, silk, cotton, and wool.

Drying of yarns in packages such as cops, cheeses, or on perforated beams is a gradually increasing practice. Package dryers are usually of the chamber type, and have proved efficient when properly designed.

Yarn dryers are commonly used in which single strands are led in sheets over drying cells, dry-cans (or cylinders), or are looped through continuous hot-air dryers. The over-all steam efficiency in all except the loop dryers will run up to 80% where the cans or cells are well covered with the sheet of yarns and where other possibilities of heat loss are provided against. Good control and a well-designed dryer are required to attain a heat efficiency of more than 45% in a loop dryer although up to 70% can be gained with careful control.

Cloth is drier in the slack form in loop dryers. Generally, however, it is dried on cans or in the so-called tenter-frame. The efficiency of the average tenter housing is about 15 to 25%. Consequently, good practice requires that the dry cans which precede the tenter should perform as much of the entire drying operation as will leave the cloth extensible enough for the final stretching and drying in the tenter itself.

Humidification

In the textile industry the humidification of rooms in which manufacturing operations are carried on is general. Cotton requires an atmosphere of at least 50% relative humidity for good picking, 60% for carding, 60% to 75% for spinning, and 65 to 85% for weaving. Woolen and worsted fibers pick and spin better when humidified; and 50% relative humidity is desirable. Op-

erations involving wool, however, are not so sensitive to variations in humidity as are those on cotton. In the cotton industry, a drop in relative humidity of 20% has been known to increase warp breakage in weaving to an extent sufficient to cut in half the number of looms which were being operated per weaver. Silk and rayon operations also require a steady and controlled humidity. In the manufacture of rayon, from the time it leaves the spinneret, controlled humidity of about 60% relative is required. Variations of more than plus or minus 5% relative humidity are detectable in their effects on nearly all textile operations where the regain is a factor; and closer regulation is desirable. Consequently, the regulation of room humidity must be absolutely automatic.

Evaporation and Refrigeration

Use of evaporation in the textile industry is rare. In the case of large cotton mercerizing plants, however, where the consumption of caustic soda is sufficient to justify it, evaporators are employed. Customarily, they are either triple or quadruple effect.

Refrigeration is another chemical engineering process which is rarely required in textiles. In cotton mercerizing, refrigerated caustic soda solutions are employed in some plants. An interesting instance of the use of refrigeration is found in the Heberlein process for the low-temperature treatment of cotton cloth with caustic soda, where the temperatures employed are far below those for a so-called low-temperature mercerization.

Flow of Heat and Fluids

There are in the textile industry no problems involving the flow of heat which are not similar to those encountered elsewhere. The same may be said in regard to the flow of fluids.

The recovery of heat from waste dye or boil-off liquors is determined upon and, if necessary, put into effect by the use of interchangers, as in other industries. It might be said, however, that textile mills as a whole are wasteful of hot water and that the use of heat interchangers is not so general as it should be. The cost of coal and power is heavy in textile operations, and much work along engineering lines remains to be done for nearly all the smaller units.

Major Problems

It is somewhat venturesome to attempt to lay out the fields in which scientific and engineering work appear to be needed in the textile industry, but a few of these are listed below:

1. An economical method of recovering wool-grease residues from scouring liquors. At present the only useful byproduct is lanolin, which enjoys a most restricted market. The value of the residues for fertilizer does not repay the cost of recovery under present methods. Legislation against stream pollution, however, may force this issue without regard to the economics of the case.

2. Work should be done to determine whether useful byproducts cannot be derived from wool scouring residues. At least 150,000,000 lb. of such residue is annually discharged to waste in this country.

3. Dyeing of yarn and raw-stock are time-consuming processes; and means for speeding up the dyeing cycle would result in very large economies.

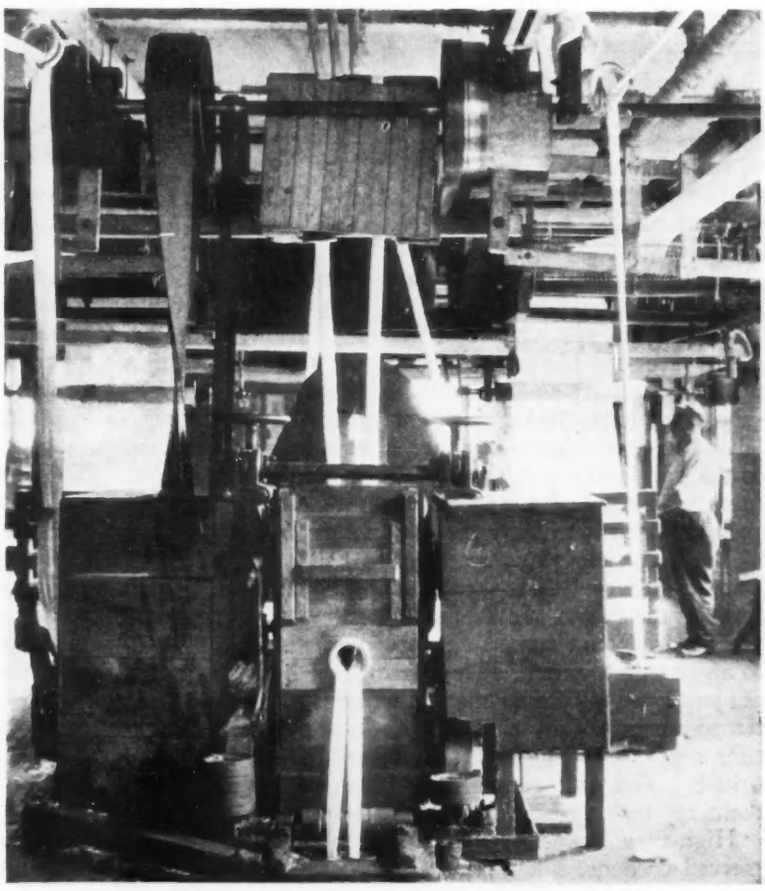
4. Quicker means than those generally employed for boiling-off cotton cloth before bleaching and dyeing should be introduced.

5. A good continuous dyeing process for all raw-stock fibers would be advantageous. Only one such machine has ever been made to work successfully; and this has so many difficulties connected with it, that its use can hardly become general.

The removal of the waxes and gums natural to cotton fibers and of motes must be accomplished in order to assume even bleaching and dyeing. Common practice is to boil the cloth or yarn under pressure in kiers holding up to 10,000 lb. of material for from 4 to 16 hr. The chemicals used are soda ash with or without soap or soluble oils as assistants. Trisodium phosphate is also used. The general use of a good continuous process to replace the cumbersome and costly kier boiling is greatly to be desired.

Primarily, on dyestuffs, chemicals, and new processes or finishes, the most important problems to be solved are chemical.

The influence of chemical engineering control, however, to a greatly increased degree would result in major economies in nearly any mill and on any of the above items. The textile industry as a whole is well advanced mechanically, but by no means is this true chemically or from the viewpoint of the chemical engineer. Rule-of-thumb methods prevail very largely, especially in the manufacture of wool and silk products.

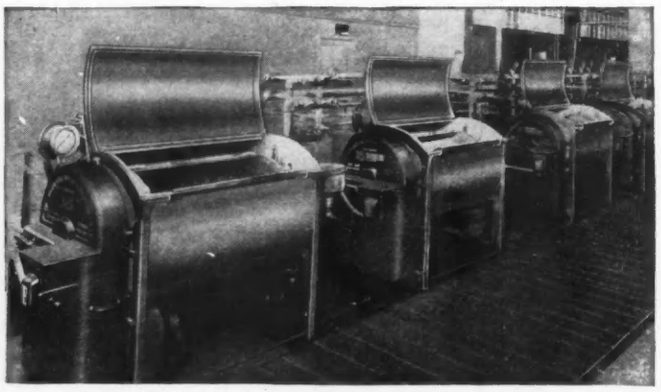


The conventional bleach house is virgin territory for the chemical engineer

Variety of Degumming Agents *Now Available*

By Herbert C Roberts

DEGUMMING agents used in the silk industry vary considerably in their physical and chemical properties. In general, however, these products may be classified as high-titer soaps, low-titer soaps, liquid soaps, boil-off oils without silicate of soda, boil-off oils containing silicate of soda, and boil-off oils containing solvents.



Thorough degumming is essential to best results in dyeing silk hosiery

High-titer soaps are made from fatty matter which is solid at room temperatures. The fats generally used are tallow, palm oil, vegetable tallow, and coconut oil. Soaps are considered high-titer soaps if the melting point of the fatty acids is between 35 and 44° C. High-titer soaps have the characteristic property of making a jell when a solution containing 2 oz. (or over) of soap to the gal. is allowed to cool. They are difficult to dissolve unless the water is hot and are difficult to rinse from the goods without the use of hot water.

The high-titer soaps are used to boil off piece goods when a lather of thick, beady soap bubbles is circulated through the fabric. In the lather method of degumming, the goods do not come in contact with the watery bath to any marked extent. The reason that high-titer soaps are employed is because they lather profusely at a boiling temperature. Many silk men criticise the use of high-titer soaps, asserting that they leave the silk harsh and brittle. The fact remains, however, that those using them are making usable and salable merchandise.

High-titer soaps are employed also in boiling-off pierced cocoons, silk waste, etc., preparatory to making spun silk. Likewise, many hosiery mills specializing in dyeing of seamless hosiery choose a high-titer, vegetable-oil soap. Again, broad-silk manufacturers who manufacture fabrics made from spun silk and schappe use high-titer soaps to boil off the skeins before they are dyed. As a general rule, high-titer soaps can be employed in boiling off silk in those cases where the boil-off liquor or gum soap is not used in the dyebath.

Low-Titer Soaps

Low-titer soaps are made from oils which are fluid at room temperatures; that is to say, oils which have a titer under 25° C. Olive-oil foots and red oil or oleic acid are examples.

Low-titer soaps can be identified by their rapid solubility in lukewarm water. They produce the maximum amount of suds at temperatures under 140° F. Very concentrated solutions do not jell readily. Low-titer soaps can be rinsed from the goods more readily than high-titered soaps. Because of these properties, many authorities recommend their use, and they have found wide application in the silk industry for degumming various types of materials.

Liquid Soaps

Liquid soaps used for boiling off silk are potassium soaps of low-titer oils. Most of them are kept in solution by means of a solvent, such as diethylene glycol, Cellosolve, or acetone. Use of these solvents enable the manufacturer to make a highly concentrated product, and at the same time to keep the product fluid.

The liquid soaps often are finished slightly on the alkaline side. This enables them to be used in water of moderate hardness. Hosiery manufacturers have adopted the liquid-soap degumming agents to a greater extent than have the piece-goods manufacturers. The liquid soaps seem to be particularly adaptable to the processing of high-twist full-fashioned hosiery. They mix readily with water, this property being a great convenience to the manufacturer who is running his dyehouse on small lots of varying weights, as it eliminates the necessity of tanks for boiling and dissolving soap. The correct amount of soap can be drawn from the barrel, mixed with an equal quantity of warm water, and then poured into the dyeing machine, which has previously been charged with water and the hosiery.

Liquid-soap degumming agents are finding extensive use in boiling off and scouring fancy hosiery composed of acetate yarns in combination with silk and regenerated rayons. In fact, they not only are used to degum and scour the stockings, but are employed in the dyebath, as they tend to keep the dye dissolved or dispersed and also to prevent it from sticking to the dyeing machine and forming a thick scum. To avoid saponification and delustering of the acetate yarn, treatment at high temperatures and for too long a time with products of high alkalinity must be avoided.

Boil-Off Oils

Boil-off oils which do not contain silicate of soda are seldom used in the broadsilk industry, but are fre-

quently employed in degumming hosiery. They are generally made from sulfonated castor oil and finished with an excess of sodium hydroxide. They are used chiefly in the one-bath dyeing method. These products are rapid in their wetting-out and penetrating action, hence they speed up the boiling-off and dyeing.

Boil-off oils which do not contain silicate of soda must be used by experienced operators, as the excess alkali in these products is not buffered in any way except by the sericin and soaking materials being removed from the silk. Therefore, unless the degumming is under strict control, by means of time and temperature regulation, the hosiery may be injured by reason of the excess alkali.

A method has been developed which permits the use of these boil-off oils, without fear of injury to the silk. This method consists of adding to the boil-off bath protective colloids derived from the waste liquors of the sulfite process of making paper pulp. Introduction of these protective agents has increased the use and scope of boil-off oils not containing silicate of soda.

Silicate of Soda

Boil-off oils containing silicate of soda are the oldest type of liquid degumming agents. They are mixtures of castor or red-oil potash soaps, caustic soda, and silicate of soda. They are used chiefly in hosiery dyeing, in either the one-bath or the two-bath process and are of particular advantage in degumming service-weight hosiery. Many dyers believe that they leave the goods with a softer feel and handle than soaps, and that they do not show up sleazy knitting in these coarser gauges.

The reason for using silicate of soda, is to secure a buffer action and to supply gradually enough alkalinity to the boil-off bath to offset that which is neutralized by the sericin and soaking oils being removed from the silk. In a boil-off bath where silicate of soda is absent, the *pH* value is high when the goods are entered, and diminishes as the degumming proceeds. It may be as high as 12 at the start and drop to 8 in the first 15 or 20 min. When this happens, the last traces of gum require a much longer time to remove; and as a consequence, the goods must remain in the bath a long time. When silicate of soda is used, the *pH* value of the bath remains nearer a constant value throughout the entire operation. It is generally about 10.5 when the goods are entered, and does not drop much lower than 9.5 when the goods are completely degummed.

If the goods are dyed with the addition of any acid to the dyebath, this type of boil-off oil cannot be used, unless the goods are thoroughly rinsed before dyeing. Silicate of soda is broken down by acids, and produces a gummy substance which finally hardens and becomes like ground glass.

Solvents

Boil-off oils containing solvents are intended primarily to remove oil stains and grease spots simultaneously with the degumming. Although stains and grease spots are not confined to any one class of goods, seamless hosiery in particular is liable to contain oil stains especially where the machines are new or have just been overhauled. Then too, silk filling will at times become soiled and stained, even in the best-regulated mills.

When oil stains and grease spots are not deeply embedded in the goods the solvent boil-off oils will remove the defects while the fabric is being degummed. When the spots are deeply embedded in the goods they are removed by treating them with a few drops of the neat boil-off oil and giving them a slight rubbing by hand, before entering the goods into the boil-off bath. Another advantage of the boil-off oils *(continued on page 70)*

Fair Trade Practices Defined

IN COOPERATION with the Textile Converters' Association, The Association of Cotton Textile Merchants of New York has just published in booklet form "Definitions of Fair Trade Practices in the Sale and Purchase of Cotton Gray Goods for the Converting Trade."

These "Definitions" represent one of the most important projects of its kind ever undertaken by trade associations representing sellers and buyers. They are the culmination of more than three years of cooperative effort on the part of committees representing the two associations. The committee representing The Association of Cotton Textile Merchants of New York consisted of Robert F. Bowe of Hunter Mfg. and Commission Co., chairman; Elroy Curtis of Union-Buffalo Mills Co.; Marvin R. Cross of Harmony Mills; and the committee representing the Textile Converters' Association was composed of Henry G. F. Lauten of Prince Lauten Corp. and Howard Veit.

They labored endlessly in sifting a mass of data for the purpose of establishing as standard procedure the fair trade practices prevailing among the best houses in both associations. The necessity for the establishment of such standard practices has long been recognized among manufacturers, selling agents and converters. The new spirit of cooperation so effectively developed in the cotton textile industry within the past few years was strongly manifested throughout the negotiations.

The book defines under appropriate headings various practices in their relation to trade customs commonly accepted and repeatedly upheld in arbitration and legal proceedings. Definitions of such standard customs as the percentage of single and double cuts allowable on contracts; average length of single and double cuts; what constitutes a "second"; use of oil remover; tolerances for quantity, width, thread count and weight; rejections and claims, and many others are clearly set forth as fair trade practices and the ruling customs of the trade.

The sound and constructive recommendations contained in the booklet are of the utmost importance to buyers and sellers of gray goods alike. It is expected that their importance will be recognized and that they will be adopted generally. Their adoption will greatly benefit the entire industry through the elimination of waste and misunderstanding, and through the promotion of trade.

Copies of the booklet are available for distribution to interested members of the trade at the offices of The Association of Cotton Textile Merchants of New York, at 40 Worth Street.

Large Classes Graduated by New Bedford Textile School

NEXT to the largest number to receive diplomas or certificates in the day classes and the largest number to date in the evening classes, marked the graduation exercises of the New Bedford (Mass.) Textile School, Friday evening, June 12. A total of 15 day diplomas, 4 day certificates, 1 evening diploma, and 181 evening certificates were presented.

In his opening address, Joseph H. Hanford, president of the board of trustees, spoke of the many changes taking place in the industry and of the opportunities. As the principal speaker, Joseph E. Warner, attorney general, Commonwealth of Massachusetts, congratulated the classes on many points, traced the historical development of the industry and urged resourcefulness.

Interest centered upon the awarding of medals as competition had been very close. Peter Warburton won the medal of the National Association of Cotton Manufacturers for the highest average in the general cotton course, and George Oliver Gardner, Jr., received honorable mention; presentation being made by John T. Kirk, trustee. The William E. Hatch medal, presented by the alumni to the freshman in general cotton course receiving the highest marks, was handed to Roger J. Gentilhomme by James O. Thompson, Jr., trustee, John Frodyma receiving honorable mention. The Peter Slater medal for the best student in the evening class of design was presented by Hon. Samuel Ross, trustee, to Walter Houghton, honorable mention going to John Maurer.

After the presentation of diplomas and certificates by Lila A. Neves, trustee, William Smith, principal of the school, delivered a few pertinent and well received remarks. Mr. Smith commented on the fact that the race for the N.A.C.M. medal had been so close that no one knew right up to the last who had won and that actually less than one quarter of 1% had separated the marks of the two leading candidates. He also spoke of the new equipment which had been added during the last year and stated that an increased amount of testing had been done, with manufacturers calling upon them many times particularly with regard to rayon. He called attention to the exceptionally high marks of the graduating class.

Alumni of the school held a clam bake and outing at Fort Phoenix, Saturday afternoon, June 13.

Diplomas in the general cotton manufacturing day class were awarded to: Walter J. Deptula, George O. Gardner, Jr., Aloysius Mendrala, Jacques M. L. Potel, Antonio Said, and P. Warburton.

Diploma in designing was presented to Alfred Poremba and in chemistry, dyeing and finishing to: Preston W. Cook, Abram D. S. Damon, Ralph L. Northway, Everett S. Peirce, Stanley G. Sanders, and Bradford T. Stevens.

In the evening classes, a diploma was awarded to Leon F. Dumas in carding and spinning. Among the recipients of evening certificates the case of Francisco d'O Abreu was of interest. Mr. Abreu, a Portuguese by birth, studied faithfully, built a working model of a Crompton & Knowles loom, and, as a reward for his efforts of self-advancement, has received a position as superintendent of weaving in a South American mill.

▸ Plan Textile Exhibition at Chicago World Fair

Plans for exhibition at the Chicago World Fair in 1933 of progress made during the last century in the textile and needle trades were discussed Monday by leading artists, designers and the Fashion Art League at a meeting at the Marge Studios, Chicago. Madame Marge, one of America's pioneer designers and winner of a large number of major trophies for her work with quality textiles of silk, cotton and synthetic fibers, was hostess. A fashion revue of advance summer and fall fabrics and frocks was staged to indicate the way in which fashion trends might be displayed at the forthcoming fair. New fabrics of Bemberg in frocks for daytime, afternoon and evening were used to demonstrate the advance in quality synthetic fibers.

▸ Fall Colors Selected by Dress Trade

Fall colors that have been selected by the Associated Dress Industries of America, in conjunction with the Textile Color Card Association, have been announced. The daytime dress shades selected were: clay beige, burnt coffee, Annamese brown, Catalan, Arbor green, Alamo green, Bantou, Guardsmen blue, Radiance red, Bengali red, Cassis, French taupe, Grandee, tropic green. Evening colors for dresses chosen were: cloud white, rose white, Ciel white, Abricotine, Fondant green, Dragee blue and lime drop.

▸ British Cotton Goods Shippers in Merger

A significant step in the present move toward rationalization in the British cotton business has been taken by several well known Lancashire cotton shipping companies in forming a merger, according to British trade advices forwarded to the Commerce Department by Trade Commissioner William L. Kilcoin.

The combine expects to effect considerable reduction in freight charges and thus permit goods to be offered in Far Eastern markets—India, China, Burma, and Singapore—at lower prices. This merger was made as a result of recommendations of the recent cotton mission to the Far East and with the object of arresting the decline in cotton cloth exports to that area.

▸ May Cotton Goods Figures Show Need for Further Curtailment

Statistical reports of production, shipments and sales of standard cotton cloths during the month of May, 1931, were made public today by The Association of Cotton Textile Merchants of New York. The figures cover a period of four weeks.

Production during May amounted to 225,392,000 yd., or at the rate of 56,348,000 yd. per week. This was slightly lower than the April rate of production.

Shipments during May were 205,603,000 yd., equivalent to 91.2% of production. New business booked during the month amounted to 160,029,000 yd., or 71% of production.

Stocks on hand at the end of the month amounted to 301,943,000 yd., representing an increase of 7% during the month. Unfilled orders on May 31, 1931, were 248,544,000 yd., representing a decrease of 15.5% during the month.

It is normal for unfilled orders to decrease and stocks to increase at this time of the year. If the mills will pursue throughout the summer the constructive policy of regulating production to demand, as they did last year, they will be in a good position when the buying for fall begins.

▸ Activity of Finishers for May and April

The National Association of Finishers of Cotton Fabrics has issued its monthly statement of percentage of normal average capacity operated in the industry as follows:

	1931	May	1930
	(5 Wks.)		(5 Wks.)
White & Dyed Combined	54 (43%–White, 57%–Dyed)	49	49 (47%–White, 53%–Dyed)
Fast Black	18	18	
Logwood and or Sulphur Black	34	34	
Prints	62	63	

	1931	April	1930
	(4 Wks.)		(4 Wks.)
White & Dyed Combined	55 (44%–White, 56%–Dyed)	56	49 (49%–White, 51%–Dyed)
Fast Black	14	23	
Logwood and or Sulphur Black	28	34	
Prints	73	81	

▸ Viscose Co. Builds Movie Projection Room

In order to show their new sales training picture conveniently, the Viscose Co. has furnished a motion pic-

ture projection room adjoining the offices of John A. Spooner, merchandising director, at the company headquarters, in New York. The room will be open to buyers, merchandise managers, converters, manufacturers, and all store personnel interested in viewing the 2-reel picture showing the various steps in the manufacture of quality control rayon merchandise, from the preparation of the viscose solution to the finished fabrics and garments.

Narrow Sheeting Men Hear of New Uses and Condemn Night Work

THE results of National Cotton Week in terms of value to cotton growers and manufacturers of the South, and particularly to those mills producing household and industrial fabrics, were presented by George A. Sloan, president of The Cotton-Textile Institute, New York City, to a group of narrow sheetings mill executives meeting in Atlanta on June 12.

To illustrate the unusual interest of the public in all kinds of cotton goods at this time, Mr. Sloan mentioned that whereas styled cottons had been effectively dramatized in the stores' presentation last week, a number of the more spectacular increases in actual sales volume were reported by merchants on staple items.

"There is considerable in the experiences of National Cotton Week," Mr. Sloan said, "that merits careful thought in considerations now being given to extending the markets for the products of the narrow sheetings mills. One of the very first of the hundreds of endorsements given to this notable merchandising event of the cotton textile industry came from the Independent Grocers Alliance, with several thousand member stores scattered throughout 37 States.

"In the varied promotions during National Cotton Week cotton bags of narrow sheeting for the packaging of groceries and food stuffs came in for a new share of public attention. The possibilities for furthering their use in these fields are alone enormous. The new pronounced trend toward the packaging of these commodities in small retail units is opening up markets unheard of a few years ago. One example is to be noted in the recent decision of a manufacturer in the Middle West to put up ready-cut macaroni in cotton bags. Last year seven of the well-known cane sugar refiners used more than 105,843,000 two, five and ten-pound cotton 'pockets.' All of the individual member companies of the Sugar Institute advised that their purchases of these small-sized cotton bags showed consistent increase during the last five years.

"New uses activities now engaging the Institute's attention, in cooperation with the United States Departments of Agriculture and Commerce, include: first, wrapping gas mains in cotton fabric with a resultant 20% increased pipe efficiency as used in Galveston, Texas, and elsewhere; second, cotton fabric membranes in tennis court construction to prevent the sandy sub-surface soil from working through to the top of the playing courts; third, increased use of cotton bags—new cotton mesh bags developed for fruits, vegetables and nuts; fourth, use of canvas covering stretched across the roofs of the apartment houses to make an insulating air space for the comfort of top-floor tenants; fifth, increasing use of cotton fabrics for men's summer suits."

At the meeting of narrow sheetings mill executives held in Atlanta, Ga., on Friday, June 12, the following resolution was unanimously adopted:

"Whereas the narrow sheetings industry has been suffering for a number of years from over-capacity and consequent overproduction resulting in a constant state of instability of employment and market conditions, and

"Whereas this situation has been attributable largely to night operation of narrow sheetings looms despite the fact that statistics clearly indicate that day operations would more than have satisfied the public's requirements;

"Therefore, be it resolved, that the Narrow Sheetings Group condemns the operation of narrow sheetings looms at night as an unsound and highly demoralizing practice for which there is no justification either socially or economically, and

"That members of the group use their influence in encouraging the concentration of production and stabilization of employment on the day shift."

Market Research Discussed at U. S. Institute Meeting

IN ADDITION to reports of progress and projects along the lines of scientific research, consideration of the question, "What is being done, and what can be done, in the field of distribution research in the textile industry," occupied the afternoon session at the meeting of the board of directors, U. S. Institute for Textile Research, held at M.I.T., Cambridge, Mass., June 16.

Declaring that they had found a need for what might be called economic research as well as scientific research, Dr. Samuel W. Stratton, president of the U. S. Institute and chairman of the board M.I.T., introduced the topic of market research.

"The only sound insurance against over-capacity, and 'industry obsolescence' is a soundly conceived, systematically conducted, and properly controlled research policy directed at the development of new products and the improvement of processes," declared Prof. Robert F. Elder, division of business and engineering administration, M.I.T.

E. F. Gerish, chief, regional division, Bureau of Foreign and Domestic Commerce, spoke of the work which the Government is doing along the lines of market research. Mr. Gerish stated that more than anything else the Government supplied ammunition for others to study.

The next speaker, A. W. Zelomek, statistician-economist of the Fairchild Publications, emphasized the negligible amount of market research now current in the industry.

As a guide for what must be done he mentioned: study of purchasing power in communities served; determination of potential market so that production rate on a particular fabric can be set; study of movements of style and color; effects of climatic conditions; demand according to price brackets; and statistics on sales by departments.

H. V. R. Scheel, vice-president, Botany Consolidated Mills, Inc., and chairman of the institute's sub-committee on economic research, led the marketing discussion and read a letter from Philadelphia Textile School which outlined the position of the school with regard to cooperating. Prof. H. J. Ball, Lowell Textile Institute, gave an outline of the work which they were doing along physical and chemical lines.

The regular quarterly meeting of the board of directors, the monthly meeting of the executive committee and also of the research committee and board of trustees were held at the University Club, Boston, Tuesday morning.

▶ Textile Foundation to Aid Development of Research Men

Allocation of $100,000 to be used during the next two years for the establishment of fellowships in textile research and the unanimous reelection of Franklin W. Hobbs, chairman of the board of directors, are reported as results of a meeting of the board of directors of the Textile Foundation held in Washington last week.

Following the conference, E. T. Pickard, secretary, said:

"Recognizing the need for development of a body of research-minded and research-trained individuals specializing in textiles and allied fields who might be eventually attracted into the textile industry, the board of directors at their meeting today authorized the allocation of $100,000 to be used during the next two years for the establishment of fellowships in textile research.

"While the directors have a plan or program more or less in mind, they intend through a subcommittee consisting of Messrs. Hobbs, Cramer, and Thompson, with the aid of competent advisors, to decide on details during the summer in the prospect of launching the actual work in the fall."

Those present were Franklin W. Hobbs, chairman; Stuart W. Cramer, treasurer; Secretary of Commerce Lamont, Henry D. Thompson, and E. T. Pickard, secretary.

NEWS about MEN

✦ JOHN M. SCOTT, banker and capitalist of Charlotte, N. C., has been elected president of United Spinners, Inc., which were formed by reorganization of the Lowell Cotton Mills and Peerless Mfg. Co. The directors of the company are PRESIDENT SCOTT, J. H. MCADEN, both of Charlotte; S. N. BOYCE and W. A. JULIAN, of Gastonia, and B. M. EDWARDS, of Columbia, S. C.

✦ AGNEW H. BAHNSON, of Winston-Salem, who for the last several years has been general manager, secretary and treasurer of the Washington Mills, with plants at Fries, Va., and Mayodan, N. C., on June 13 was elected president of the mills company, succeeding COL. FRANCIS H. FRIES, of Winston-Salem, who died June 5.

✦ H. C. FINCH, president of the Broadalbin Knitting Co., Amsterdam, N. Y., has resumed his duties following a siege of illness.

✦ S. B. ALEXANDER, southern representative of Crompton & Knowles Loom Works, has been elected president of the General Alumni Association of North Carolina State College, of which he is also a member of the board of trustees.

✦ CAPT. REGINALD PITCHER, Bradford, England, an official of Francis Willey & Co., Ltd., of that city, has been passing a few days at the plant in South Barre, Mass.

✦ J. A. MACK, representative of the U. S. Chamber of Commerce, Washington, D. C., is on a visit to textile centers in the Mohawk Valley conferring with manufacturers relative to export and other problems.

✦ ALBERT E. DONALD, president of the H. T. Hayward Co., Franklin, Mass., was a speaker at the fifth anniversary observance of the Rotary Club of Uxbridge, Mass., on June 9. He is a past president of the club.

✦ R. GRADY RANKIN, prominent in the textile industry in Gastonia, and Senator from Gaston County, to the last legislature, has been recommended by Lieut.-Gov. R. T. FOUNTAIN, to fill the vacancy on the State advisory budget commission, caused by the resignation of F. L. DUNLAP, recently appointed State personnel director.

✦ SAMUEL A. WELDON, a director of the Bigelow-Sanford Carpet Co., Thompsonville, Conn., has been elected a director of the American Telephone & Telegraph Co.

✦ JOHN F. TINSLEY, vice-president and general manager of the Crompton & Knowles Loom Works, Worcester, Mass., will deliver the introductory address at the graduating exercises of the David Hale Fanning Trade School for Girls in that city on June 23.

✦ ROGER MORSE HOLDEN, treasurer of the Holden Knitting Co., Worcester, Mass., and STELLA BROOKS WOODWARD, of the same city, are to be married at the summer home of the bride in Paxton, Mass., on June 20.

✦ CARL M. MOORE has resigned as agent and assistant treasurer of West Boylston Mfg. Co., Montgomery, Ala., and is succeeded by JOSEPH I. GASKILL, previously secretary of West Boylston Mfg. Co., Easthampton, Mass.

✦ H. WADSWORTH CRAWFORD, agent for the Stevens Linen Works, Webster, Mass., has been elected treasurer of the Nichols Academy, Dudley, Mass., where he lives.

✦ W. H. DE HART has resigned as boss designer at the plant of the Bigelow-Sanford Carpet Co., Amsterdam, N. Y.

✦ W. L. HOLYOKE, consulting engineer for Borden Mills, Kingsport, Tenn., and E. D. CATE, superintendent of the Tennessee Eastman Corp., Kingsport, were elected aldermen in a recent biennial aldermanic election at Kingsport.

✦ W. M. COLMAN is now superintendent of the Silver-Knit Hosiery Mills, at Kingsport, Tenn.

✦ ALBERT A. GORDON, superintendent of the Crompton & Knowles Loom Works, Worcester, Mass., and MRS. GORDON, have returned from a tour of Europe.

✦ WILLIAM G. BROADWAY this week assumed his new duties as a director and treasurer of Haywood, Mackay & Valentine, Inc., New York. Mr. Broadway will devote himself to the styling and merchandising of the products of Eagle & Phenix Mills, of Columbus, Ga., for which Haywood, Mackay & Valentine become selling agents on July 1. Mr. Broadway has been identified with textile distribution for 30 years, a major part of that time with the former house of Smith, Hogg & Co.

✦ E. D. MELOT is now superintendent of the Johnson Silk Mills, Inc., Lexington, N. C.

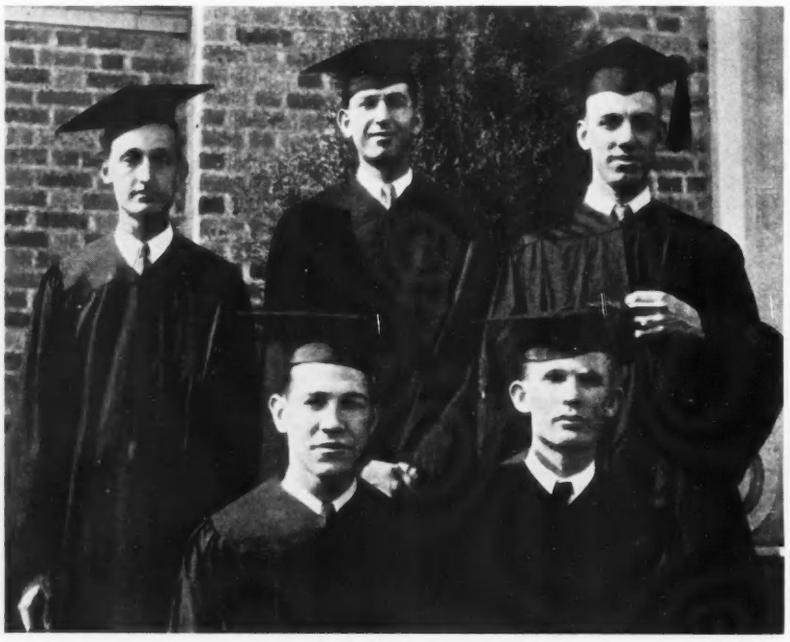
✦ OTTO MIEKAN is now superintendent of the Oneita Knitting Mills, Utica, N. Y.

✦ R. L. SANFORD, formerly of La Grange, Ga., has been appointed superintendent of the Winfield, Ala., plant of the Alabama Mills Co., succeeding R. W. HOLLIS, who was transferred to a similar position at the Aliceville plant of the company.

✦ CARL STEED is now superintendent of the Asheboro (N. C.) Hosiery Mills.

✦ C. W. GADDY, manager of the knitting department, Wiscassett Mills Co., Albemarle, N. C., has given a camp and equipment to the Boy Scouts Troop, of Albemarle, on a site furnished by E. E. Snuggs. Barracks for 32 Scouts have been erected two miles from the city.

✦ WILLIAM WILFLING, who recently resigned as superintendent of the dyeing and finishing department in the Pacific Mills, Lawrence, Mass., to accept a similar position with the Continental Mills, Inc., Germantown, Pa., has become associated with the Firth & Foster Co. as general superintendent. Mr. Wilfling was for a number



Texas Tech Graduates Five Textile Men

Commencement exercises of the Texas Technological College, Lubbock, Tex., were brought to a close June 8 when degrees were conferred upon 163 graduates, among whom five received degrees of bachelor of science in textile engineering. The baccalaureate sermon was delivered by Dr. Ivan L. Holt, St. Louis, Mo. Dr. T. O. Walton, president of Texas A. & M. College, College Station, Texas, delivered the fifth annual commencement address, while Dr. P. W. Horn, president of Texas Tech, conferred the degrees.

Scholarship awards were received by Ford Benham and Mark E. Wood. The former won the John W. Carpenter award of $250, while the latter was winner of the medal awarded by the National Association of Cotton Manufacturers. Graduating in textile engineering were the following who are pictured above: Roger Allison, Brownwood, Tex.; M. Earl Heard, Lanett, Ala.; Cary Lodal, Gordon Tex.; Mark E. Wood, Childress, Tex.; and W. A. Wardell, Avery, Tex.

Textile Families at Lowell Commencement

Two and three generations currently at work in the textile industry were disclosed at the recent commencement of Lowell (Mass.) Textile Institute. The upper picture shows Roy H. Bradford, 1906, (on the left) and his son, Williams S. Bradford, 1931 (on the right). William S. Bradford is the first of the second generation to graduate from the Lowell Textile Institute, and receive the degree of B.T.E.

The lower picture shows three generations of a family actively identified with the industry. M. A. Rawlinson, (on the right) grandfather, formerly agent of the Tremont and Suffolk Mills, Lowell, Mass., W. W. Rawlinson, (on the left) father, present agent of the Nashua Mfg. Co., Suffolk Mills, Lowell, Mass., and in the center Richard W. Rawlinson, son, who has just received his degree of B.T.E. Richard W. Rawlinson has joined the editorial department of TEXTILE WORLD.

of years superintendent of finishing in the Botany Worsted Mills, Passaic, N. J.

✦ E. B. CHANDLER is now master mechanic at Kershaw (S. C.) Cotton Mills.

✦ J. A. BRYANT, for some time assistant master mechanic of the Toxaway Plant and the Riverside Mfg. Co., of the Gossett group of mills, at Anderson, S. C., was recently promoted to master mechanic of the Riverside Mfg. Co.'s plant No. 3 at Pendleton, S. C.

✦ L. A. MCALISTER, former overseer of weaving at the National Weaving Co., Lowell, N. C., is now overseer of cotton and silk weaving at the Dunean Mills, Greenville, S. C. It was erroneously reported that Mr. McAlister was second hand in weaving at the plant of National Weaving Co.

✦ JOHN A. NELSON, overseer of spinning and spooling at the Boott Mills, Lowell, Mass., has resigned after 22 years in that position. Mr. Nelson is in his 73rd year.

✦ F. M. PHILLIPS is now night overseer of twisting, winding and reeling at the Caroline Mills, Inc., Carrollton, Ga. V. O. FULLER has been made night overseer of spinning and spooling and H. E. OVERCASH is now overseer of day spinning.

✦ T. P. TAYLOR, formerly overseer of carding at the Aragon-Baldwin Cotton Mills, Inc., Rock Hill, S. C., recently assumed a similar position with the Standard - Coosa - Thatcher Co., Chattanooga, Tenn.

✦ GEORGE W. C. CHAPMAN, who formerly held the position of overseer of night weaving at the Enterprise (Ala.) Cotton Mills, and who has been making his home in Tampa, Fla., for some time, has returned to the Enterprise plant and is now overseer of day and night weaving.

✦ E. J. WALDEN, who has been for some time night overseer of spinning, spooling, twisting and winding in Caroline Mills, Inc., Carrollton, Ga., is now superintendent of these departments.

Textile Calendar

Committee D-13, American Society for Testing Materials, Annual Meeting, Hotel Stevens, Chicago, June 23, 1931.

Chicago Yarn Men's Circle, Annual Golf Tournament, Nippersink Lodge, Genoa City, Wis., June 24 and 25, 1931.

Cotton Manufacturers Association of South Carolina, Annual Meeting, Grove Park Inn, Asheville, N. C., June 26 and 27, 1931.

Carolina Yarn Association, Second Annual Golf Tournament and Outing. (Place to be announced later.) Sept. 18 and 19, 1931.

American Association of Textile Chemists and Colorists, Annual Meeting, Boston, Mass., Dec. 4 and 5, 1931.

Southern Textile Exposition, Textile Hall, Greenville, S. C., Oct. 17 to 22, 1932.

Obituary

Robert Wolstenholme

Robert Wolstenholme, formerly associated with Thomas Wolstenholme Sons & Co., Philadelphia, died suddenly on June 11, at Seaside Park, N. J., from cerebral hemorrhage. Mr. Wolstenholme was 50 years old; he was son of Thos. Wolstenholme, the founder of that business bearing his name. He retired some years ago from that company to engage in the sale of financial securities.

Rushmore G. Williams

Rushmore G. Williams, a pioneer silk manufacturer, died recently in his 74th year. Mr. Williams began his business career in 1873 in the silk department of E. S. Jaffray & Co., and remained with that firm up to the time of its liquidation, about 1894. He then represented the Paragon Silk Co. for three years and in 1897 formed a partnership with Walter Little, a silk manufacturer in Paterson, N. J., and Quakertown, Pa., under the firm name of R. G. Williams. In 1907 the corporate name was changed to R. G. Williams & Son and was so continued until the death of Walter Little in 1926, the mills being liquidated the following year. The business has since been reorganized by Walter R. Williams, his son, and is now being conducted under the name of R. G. Williams' Son. R. G. Williams retired from active business in January, 1927.

John Clare

John Clare, head of the uniform department of the Botany Worsted Mills and a well known figure in the wool goods market for the last 30 years, died last week at his home in New York. For many years Mr. Clare was sales manager of Patterson & Greenough and styled and sold the products of the Waterloo Mill. He specialized in overcoatings and uniform fabrics. He became associated with the Botany mills two years ago following the death of Mr. Patterson and the sale of the Waterloo Mill.

James H. O'Neill

James H. O'Neill, assistant superintendent of the Sagamore Mfg. Co., Fall River, Mass., for the last 23 years, died Monday morning at his home in that city. About four months ago Mr. O'Neill suffered a stroke from which he failed to recover. Prior to joining Sagamore he was associated with the Border City Mfg. Co. He is survived by his widow, one son and four daughters.

James Allen Campbell

James Allen Campbell, aged 60 years, Whitmire, S. C., for a number of years superintendent of the spinning department of the Whitmire plant of the Aragon-Baldwin Cotton Mills, Inc., and prior to that with the Greenwood Mills, until his health failed him a few years ago, died recently.

NEWS about MILLS

Cotton

*Lancaster Mills, Clinton, Mass., sold to the Citizens Trust committee of that town on March 30, have been purchased by the Clinton Real Estate Trust, composed of Boston and New York financial interests. The purchase price of the $3,000,000 plant was not announced but is understood to be about $75,000. The new owners will sell or lease the property in units and a New York publishing company is said to be a prospective tenant.

Dwight Mfg. Co., Chicopee, Mass., idle a year, is to be operated by an outside company, which will purchase if the city will reduce the assessed valuation of the property.

*Grant Yarn Co., Fitchburg, Mass., has leased its plant on River St., to the Elsner Works, Inc., Dresden, Germany, with the privilege of purchasing within two years. The new owner will make luggage.

Parkhill Mfg. Co., Fitchburg, Mass. Mill C., a group of five buildings, formerly operated by this company, has been sold to the General Luggage Corp. of Delaware, for occupancy.

Moulton Textile Co., North Lancaster, Mass., was petitioned in bankruptcy in the U. S. District Court at Boston on June 8, by three creditors whose claims total $23,217. Insolvency is alleged. The company had been operating the former Ponikin Mills but a few years, removing from Rutland, Mass., where it did business under the name of the **Moulton Mfg. Co.** Other members of the same company also moved to Athol, Mass., where the business is operated under the name of **J. W. Moulton & Son, Inc.**, which is in no way involved in the present trouble.

Clark Thread Co., Newark, N. J., has placed orders with Foster Machine Co., Westfield, Mass., for winding and doubling equipment for its new 40,000 spindle mill at Austell, Ga. The installation will include Model 56B doublers and Model 102 high speed cone winders for the doubling processes, and Model 101 cone winders for dyeing package tube winding.

*Ellenboro (N. C.) Mfg. Co., of which W. H. Belk is president, is maintaining an operating schedule of full day work. Rayon bedspreads are being manufactured. This company recently installed 28 new looms and a modern dyeing department.

Dacotah Cotton Mills, Inc., Lexington, N. C., have closed down for an indefinite length of time. C. A. Hunt, general manager, states that he hopes operation can be resumed after a few weeks. The purpose of closing, it is understood, is to make adjustments in the affairs of the mill, and also to overcome congested conditions in the warehouses, caused by production in excess of demand.

Duchess Fabrics Corp., Statesville, N. C., has been granted a charter with an authorized capital stock of 1,000 shares, 500 without nominal or par value and 500 preferred par $100. The incorporators are J. Spencer Love, T. H. Burkhardt and W. S. Coulter, all of Burlington. The new concern has bought the mill building formerly occupied by **Gagner Mfg. Co.**, and will equip it with machinery for the manufacture of rayon crepes and fabrics. Machinery is being installed and it is expected to have it in operation in 60 days.

Aragon-Baldwin Cotton Mills, Inc., Chester, S. C., held a meeting of the board of directors at the general offices of the mill, at which was discussed the buying of $125,000 worth of new machinery for the mill at Whitmire, S. C. Those who attended the meeting aside from the Chester members of the board were: Robert Stevens and W. L. Gallon, of New York; J. E. Sirrine, R. E. Henry and R. G. Emery, of Greenville, S. C. and Alexander Long, Sr., of Rock Hill.

*Gaffney, S. C. Creditors of the **Irene Mills**, which were recently placed into receivership upon petition of Mrs. Anna C. Wheat, principal owner, have authorized Henry C. Moore, receiver, to operate the plants for an unlimited time under certain conditions. The mill and finishing plant together employ around 125 persons. The courts placed the properties in a receivership on May 26 last.

Southern Pile Fabrics Co., Greenville, S. C., has awarded contract for the construction of a spinning department to Gallivan Building Co.

Richmond Spinning Co., Chattanooga, Tenn., and its subsidiary, **Chicamauga Knitting Mills**, have resumed operation after having been shut down. Work is said to have been given 450 operatives.

Dixie Mercerizing Co., Chattanooga, Tenn., will construct a one-story brick business building, to cost $1,500.

LaFrance Plushes, Ltd., Woodstock, Ont., Can., has curtailed production at its mill and will remove a portion of the equipment for transfer to the plant of parent company, **LaFrance Industries, Inc.**, Philadelphia, Pa. A number of looms and auxiliary equipment will be shipped to the last noted place; about 32 employees have been released permanently at the Woodstock mill.

*Indicates previous mention of project.

Wool

Central Worsted Mills, Inc., Plainfield, Conn., have been granted a charter to manufacture rayon, linen and worsted fabrics with a capital of $50,000. The incorporators are: E. L. Darbie, Danielson; F. M. Blake and D. K. Blake, Brooklyn.

North Billerica (Mass.) Co. has installed a new filter plant, the filtered water for general mill use. Hungerford & Terry, Clayton, N. J., are the engineers.

Hinsdale (Mass.) Trading Corp., Louis Epstein, treasurer, has sold the **Hinsdale Woolen Mills** to the Vantican Holding Corp., New York. Terms include payment of $1,000 on mortgage held by Strong-Hewatt Co., North Adams, Mass. The Vantican Corp. assumes claims against the Hinsdale Trading Corp.

Rochdale (Mass.) Mills of the **American Woolen Co.**, are operating their spinning and carding departments on two shifts from 6 a.m. to 11 p.m.

Thorndike Co., West Warren, Mass., has shut down its weaving and several other departments of its woolen division for an indefinite period.

Botany Worsted Mills, Passaic, N. J., are said to be planning an increased production schedule, following recent contract secured from the United States Army for 262,629 yd. of 18-oz. serge for uniforms.

Spotswood (N. J.) Rug Mills, Inc., have concluded arrangements for the purchase of the mill of the **Monmouth Rug Mills, Inc.**, on Railroad Ave., Englishtown, N. J., which has been closed since last December. New owner will take immediate possession and will soon begin production with about 50 operatives, which quota will be increased at a later date. Max Balinsky is president of the purchasing company.

Mohawk Carpet Mills, Amsterdam, N. Y., have received a permit to proceed with construction of a branch railroad track connecting the New York Central Railroad with the plant.

Kennedy Worsted Mills, Inc., Pascoag, R. I., have arranged for operations at the Tarkiln Mill, which has been closed down for more than six months, and will run the carding and spinning departments at the plant on a day and night schedule until further notice, giving employment to a full working force. Additional equipment will be installed. Production at the Kennedy mills will be continued without change.

Paragon Worsted Co., Providence, R. I., has foundations under way for a three-story mill addition, 50x90 ft. E. Turgeon, 36 Exchange Place, has the general contract.

Knit

*Elk Mills (Md.) Fabric Co. has arranged for an increase in capital from 5,000 to 8,000 shares of stock, no par value. The company is planning an expansion program, including installation of additional equipment in dye house.

Massachusetts Knitting Mills, of Boston, Mass., purchased the **Cadet Knit-**

ting Mills at Columbia, Tenn., at auction, for $153,000, which was half the appraised value. J. S. Gordon, president of the Boston firm, said the capacity would be doubled upon Federal Court approval of sale.

Bailey Knitting Mill, Fort Plain, N. Y., which has been closed for about a year, has been practically sold to A. J. Barnett, of Worcester, Mass., who will purchase what is known as the Bailey Plant No. 2, consisting of lands, buildings, and machinery. Mr. Barnett expects to get the plant in operation within 30 days and by Nov. 1 plans to have 100 persons employed, in the manufacture of high-class woolen novelties.

Shur-Fit Knitters, Asheboro, N. C., has been issued a charter with an authorized capital stock of $100,000. M. A. Harris, S. D. Harris and H. M. Robbins, all of Asheboro, are incorporators.

Willis Hosiery Mills, Inc., Concord, N. C., have purchased the former Brancord Mfg. Co. building, Concord. The Willis Company, it is reported, plans to expand its business, necessitating a larger building.

Adams-Millis Corp., High Point, N. C., has plans for the immediate erection of a five-story finishing plant and an addition for a fourth story to the present plant.

Virginia Maid Hosiery Mills, Inc., Pulaski, Va. The addition planned to double the present capacity of the plant will be constructed at a cost of $40,000, including equipment, it is reported. The ground has been broken and the building proper will be completed within two months. General contract has been awarded to D. J. Phipps, of Roanoke, Va.

Phoenix Hosiery Co., Milwaukee, Wis., has announced a general wage reduction of 10% in different departments of its mills.

Silk

Belding-Heminway Co., Watertown, Conn., plant has been acquired by the Star Investment Co. for the **Princeton Rayon Co.,** Petersburg, Va. Several buildings are involved with some 75,000 sq.ft. of floor space. Some operations now carried on in the South will be transferred to Watertown.

**Indicates previous mention of project.*

Romaine Silk Co., Paterson, N. J., recently formed with a capital of $25,000, to operate a local mill, will be headed by Harry Sugar, 200 Eighth Ave., Paterson. Joseph Sugar, Paterson, will also be an official.

Carson & Gebel Silk Co., Paterson, N. J., has concluded arrangements for purchase of former mill of **Singleton Silk Mfg. Co.,** on Silk Mill Lane, Dover, N. J., consisting of a group of four buildings, with main three-story mill, 40x200 ft. New owner will remove present mill to new location and will carry out an expansion program for increased capacity. Removal is expected to be completed early in October. Employment will be given to more than 50 operatives at Dover mill.

White Haven Silk Co., Plains, Pa., established in 1898, and its subsidiaries, Plains Silk Throwing Co. and Nanticoke Silk Throwing Co., have merged into a new corporation under the name of White Haven Silk Co., Inc., with an authorized capital of $250,000. The same personnel as heretofore, controls the White Haven Silk Co., Inc., and its affiliated corporation, Anthracite Silk Throwing Co., Inc., Wyoming, Pa. Officers of the new corporation follow: A. W. Magagna, president; Wm. J. Smith, vice-president; A. R. Funk, secretary; R. J. Magagna, treasurer.

Baron Silk Co., Paterson, N. J., recently organized with a capital of $100,000 to operate a local mill, will be represented by David Harrison, 5 Colt St., Paterson, an attorney. The company is headed by Henry Baron and Max Seidel, both of Paterson.

E. H. Kluge Weaving Co., West New York, N. J., receivers have approved the sale of local two-story mill at 717 Monroe Place, to Fred Malzone, West New York, who will use it for another line of manufacture.

Champlain Silk Mills, Whitehall, N. Y., have sold property to H. B. Miller, according to a deed filed this week.

Phoenix Silk Mfg. Co., Inc., Allentown, Pa., has begun the removal of 200 looms from its Adelaide Mills at Court & Race Sts., to its plant at Pottsville, Pa. This represents, it was said, 30% of all looms that were working at the time the silk workers strike began about seven weeks ago. The removal of the 200 looms will permanently eliminate work for about 150 weavers, twisters and warpers, according to Evan F. Walters, superintendent.

***Associated Textiles of Canada, Ltd.,** Louisville, Que., Can., have received tenders and award is now pending in connection with erection of superstructure of proposed addition to textile plant. Plans call for two stories, 100 x 142 ft.

Montreal, Que., Can. Joseph Gold, formerly connected with Silk Mills of Canada, Ltd., Actonvale, Que., has rented the Wright Flexible Axle Building, in the eastern part of Montreal, which will be used to house the machinery and equipment for a silk manufacturing plant.

L. & L. Textiles, Ltd., Toronto, Ont., Can., has been incorporated to manufacture woven fabrics and has leased a building at 34 St. Patrick St., Toronto. Thirty looms are being installed and will be put into production shortly. The company will produce a type of fabric used principally in the manufacture of hat linings.

Finishing

***Passaic (N. J.) Piece Dye Works,** have awarded contract for masonry and iron work to Abram Freeswick, 36 Mineral Spring Ave., Passaic, for a two-story addition, 50 x 64 ft., at rear of Bloomfield Ave., to be used primarily for storage service. John F. Kelly, Post Office Building, Passaic, is architect.

Castle Piece Dye Works, Paterson, N. J., have awarded a general contract to Ralph Pauldine, 66 North Tenth St., Hawthorne, N. J., for alterations and improvements in dye house to cost about $5,000.

Boyd Textile Corp., Williamstown, Mass., recently appraised without equipment at $585,325, was sold June 5 to Hiram N. Bacon and John Rofenole for around $25,000. The plant was established by the old Boston Finishing Co. and was shut down a year ago by the Boyd company.

L. B. Luithlen Dye Works, Philadelphia, Pa., have installed a large Inversand zeolite water softening plant, softened water to be used in dyehouse. Hungerford & Terry, Clayton, N. J., are the engineers.

Textile Patents

CLOTH ROLL for looms. 1,803,286. Harry W. Thatcher, Hopedale, Mass. Assigned to the Draper Corp., Hopedale, Mass.

CLOTH ROLL mounting. 1,803,180. Anthony D. Garolinski, Worcester, Mass. Assigned to Crompton & Knowles Loom Works, Worcester, Mass.

COTTON feeding and separating and cleaning machine. 1,802,615. Orville Mitchell, Dallas, Texas.

COTTON feeding, separating and cleaning machine. 1,802,614. John E. Mitchell, Dallas, Texas.

DYEING, printing or stenciling of cellulose acetate or products made therewith. 1,803,008. George H. Ellis, and William Goldthorpe, Derby, England. Assigned to the Celanese Corp., of America.

FEELER to stop loom. 1,803,188. Harry Howorth, Providence, R. I. Assigned to Crompton & Knowles Loom Works, Worcester, Mass.

FABRICS, Process of treating. 1,802,956. Herbert Platt, Cumberland, Md. Assigned to Celanese Corp. of America.

FABRIC shearing machine. 1,802,520. Arthur C. Mason, Hawthorne, N. J.

KNITTED FABRIC. 1,802,337. John C. Decker, Moreland Township, and Harry Aull, Philadelphia, Pa. Assigned to Freidberger-Aaron Mfg. Co., Philadelphia, Pa.

KNIT HOSIERY. 1,803,138. Robert W. Scott, Babylon, N. Y. Assigned to Scott & Williams, Inc., New York.

LOOM. 1,802,820. Verner Lindsjo, Hopedale, Mass.

LOOMS, Harness stop motion for. 1,802,855. George W. Whithead, Wilkes-Barre, Pa.

LOOM, Let-off mechanism. 1,803,143. Oscar V. Payne, Worcester, Mass. Assigned to Crompton & Knowles Loom Works, Worcester, Mass.

LOOMS, Let-off motion for. 1,803,142. Oscar V. Payne, Worcester, Mass. Assigned to Crompton & Knowles Loom Works, Worcester, Mass.

METHOD of and mechanism for knitting sutured fabric. 1,802,394. Walter F. Rolston, Rockford, Ill. Assigned to Burson Knitting Co.

PILE FABRICS, Power loom for the manufacture of. 1,803,222. Paul Venail, Paris, France.

PROCESS for the oxidation of leuco bases for dyes. 1,802,640. Dwight T. Ewing and Frank H. Lyons, Lansing, Mich.

SPINDLE. 1,803,151. Bertram H. Sweet, Whitinsville, Mass. Assigned to Whitin Machine Works, Whitinsville, Mass.

SPINDLE BEARING. 1,802,772. Joseph A. Miller, Hopedale, Mass. Assigned to Draper Corp., Hopedale, Mass.

SPINDLE driving mechanism. 1,803,186. Fred K. Hendrickson, Worcester, Mass. Assigned to Whitin Machine Works, Whitinsville, Mass.

TUFTING ROVING. 1,803,021. Ernest Koelia, Rockford, Ill. Assigned to Rockford Mfg. Co., Rockford, Tenn.

WEAVING, Method and means for. 1,802,907. Joseph P. Costello and Frank O'Connell, Philadelphia, Pa. Assigned to Collins & Aikman Corp., Philadelphia.

YARN, Method of and apparatus for twisting. 1,802,671. Charles B. Rockwell, Jr., and Whitworth F. Bird, Bristol, R. I. Assigned to Collins & Aikman Corp., Philadelphia, Pa.

Questions... *and* Answers

Astrakhan Yarns

Technical Editor:

Can you describe the manufacture of the special astrakhan yarn used for knitting as well as for the plush trade. (7591)

Astrakhan yarns are really "loop" or curl yarns. They can be made in two ways: (a) taking advantage of the different shrinkages found in fine and coarse wools, and (b) twisting two yarns together, one yarn being delivered at a greater rate than the other and of a coarser count and quality.

The heavy astrakhan yarns used in knitting are obtained by the first method. A light-weight roving made from fine or medium wool is twisted with a heavy-weight roving made from luster wool, mohair, or a blend of luster wool and mohair.

Combinations have been used as follows:

Fine Wool	Coarse Wool
⅓s	1/5s
⅓s	1/4s
1/1.6s	1/4s
1/3.6s	1/9s

A dandy rover makes a good twister for these yarns.

The curl or loop is developed when the yarns are scoured; the finer wool shrinks, which causes the extra length of coarse yarn to curl, and it forms loops which are regular in size.

When loop yarns of finer counts are required, the second method should be used. A fine end is used as a core or ground thread, and a coarse end is used to produce the loop. The coarse end is delivered at a faster rate of speed than the ground thread. Sufficient twist to form the desired loop is necessary. The size of the loop is governed by delivering more or less of the ground thread as required—more delivery of the ground thread results in the formation of smaller loops. This yarn may be bound by twisting it with a fine binder thread, using opposite twist with about half the original turns.

Both types of yarns are used in the manufacture of curl or bouclé cloths. When yarns made according to the first method are used, the finer count is of a hard and unshrinkable character. The heavier yarn is made from fine, good-shrinking wool. The loops are formed in the fulling. When yarns of the second type are used in bouclé fabrics, they consist of the low-quality worsted yarn combined with a yarn of mohair. The mohair thread is the thicker. When twisted, two inches of mohair, or less, may be delivered to one inch of the low-quality worsted yarn.

In one fabric a two-ply 32s, 44s quality, was twisted with a single 10s, 56s quality, the 10s yarn being allowed to run two inches to one inch of the two-ply 32s yarn. The single 10s formed small loops. The twisted loop yarn was twisted with a single 32s yarn, in the reverse direction, thus binding the loop yarn into a weavable yarn and fixing the loops. When the fabric is fulled, the thick curl yarn swells into very lofty loops, forming a lofty and springy surface. Careful handling in the fulling is necessary.

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Beater Blows and Card Settings for Cotton

Technical Editor:

I noted in your issue of April 11, page 77, a question and answer on the subject of two-process-beater blows and card settings for mills making 20s carded yarn from ⅞-in. middling cotton. I am glad to supplement the advice you have given this inquirer.

It is rather difficult to offer specific advice with regard to his beater blows, because he has not described his opening and cleaning equipment; but I shall assume that he has a modern installation in the opening department.

If he has a porcupine or Buckley beater, I recommend that for the stock and purpose he specifies he run this beater at 500 r.p.m. I would set the steel projections ¼ in. from the feed rolls. If he has an ordinary two-blade beater for two-process picking, he will have to run at a little higher speed in order to get better cleaning. An ordinary two-blade beater on the breaker picker of a two-process picking layout should run at 45 blows per inch. On the second machine, which would be an intermediate lapper or finisher lapper (either one would do for this work), an ordinary two-blade beater should also run, I believe, at 45 blows per inch.

I should regulate the speed of the fan on this work so that it would run just fast enough to keep the beater clean, and I would set the blade of these beaters to the thickness of an ordinary 2-ft. rule from the feed rolls.

The grid bars through which the beater knocks the impurities are important. When using ⅞- to 1-in. American cotton, the bar nearest the feed-roll is usually set in such a manner that the beater blade in revolving will be about ½ in. from it at the nearest point. The last bar should be about ¾ in. from the beater blade at the nearest point. Thus the arc of the circle formed by the bars is not concentric with that formed by the path of the beater blade. The reason for setting the bars in this manner is that the cotton expands and tends to fly from the blade as the beater revolves, and thus would come against the bars if they were too near.

The angle at which the bars are set and the distance between them are also of importance in the setting of this part of the picker. The bars close to the feed-roll should have more space between them than those more distant. For ⅞- to 1-in. American cotton, there is usually about ½-in. from edge to edge of the first three bars, while the lower bars are about ⅜ in. apart.

I recommend the following card settings for this class of work:

Feed plate to licker-in.....10
Both mote knives: just as close as they will go to licker-in without rubbing.
Licker-in to cylinder.....10 tight
Back plate to cylinder top.....22
Back plate to cylinder bottom.....17
Flats to cylinder: I should use what is known as a progressive setting, beginning with a back setting block of 10 loose and continuing with closer settings at each block, concluding at the front block with a setting of 10 tight.
Front plate to cylinder top.....29
Front plate to cylinder bottom.....29
Doffer to cylinder.....7 tight
Doffer comb to doffer.....17
Licker-in screen, at point where it is bolted to cylinder screen.....22
Licker-in screen nose should be set according to the amount of fly that it is desired to take out.
Cylinder screen, back.....34
Cylinder screen, center.....34
Cylinder screen, front.....¼ in.
Flat stripping comb: just close enough to keep flats clean.

The setting of the stripping plate to the cylinder depends upon the amount of strippings to be taken out.

These settings are for cards on which the clothing is in good condition and tight. The screen settings are for screens which are smooth and not battered. The cards should be on a good floor with practically no vibration.

C. A. Dickens.

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Plating Thread Breaks in Foot of Half Hose

Technical Editor:

Ninety per cent of our bad work (fourths) is caused by the rayon breaking out at or below the heel of the hose. We always use the same rayon. We are sending to you five pairs of two different styles. You will note that the

acetate yarn has held all the way through the hose, but that the rayon breaks out in the lower part. The same tension is of course on the yarn all through the hose. We have not been able to determine why this rayon breaks out in the foot and not the leg. There is evidently some reason, and we shall thank you to advise us as to the remedy. *(7574)*

We have examined the hose and find the plating thread is cutting out in going out of the heel into the foot or at some point in the foot of the hose. In none of the samples is the plating thread missing in the leg.

The plating thread breaks in the foot more often due to the extra tension on the fabric in this portion. In knitting the leg portion, the hose is short and very little pull is put on the fabric by the stationary tin tube. In knitting the foot the hose has increased considerably in length. The stationary tube puts additional pull on the work and sometimes causes the saw-toothed sinkers to engage the fabric.

This difficulty can be overcome by properly adjusting the stationary tin tube. This tube should be set high enough to prevent the forward end of the sinker from engaging the fabric. Careful attention should also be paid to having these tubes smooth and located in a central position in the cylinder.

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Finishing Full-Fashioned Hosiery

Technical Editor:

For the boarding of our full-fashioned hosiery we use Paramount steam forms at about 5 lb. pressure. The results obtained have not been satisfactory, the stocking produced having a sloppy appearance. We have resorted to spraying the hosiery on the forms by means of air guns, and the result has been highly satisfactory. On the other hand, it is a rather involved operation, involving additional cost and a certain amount of nuisance.

We shall appreciate it if you will inform us whether there are any number of manufacturers using this latter method of finishing. We should also appreciate any information you can offer us as to whether perfectly finished hosiery can be obtained without resorting to spraying. *(7600)*

You do not state what type of hosiery you are finishing, whether cotton, rayon, or pure silk. Therefore it is difficult to give a satisfactory answer to your inquiry. However, we assume that you are finishing pure silk goods. Accordingly, we should say that 5 lb. steam pressure on the forms will produce too much heat to give a satisfactory finish on any type of silk hosiery, and particularly goods of the chiffon and semi-chiffon types. For best results in boarding silk hosiery, the temperature of the form should not exceed 190° F., and this only for heavy-weight silk. For chiffon, the temperature should be maintained at 160 to 170°. Paramount forms are designed to operate with either steam or hot water; and the manufacturer of these forms can supply you with suitable hot-water units which are thermostatically controlled to maintain the temperature of the form at any point between 160 and 200°F.

We may further say that the sloppy appearance of goods is not necessarily traceable to the boarding; and in all probability much of it is coming from treatment the goods receive in dyeing and aftertreating before reaching the boarding room. There is a strong tendency on the part of many dyers to use entirely too much soap and finishing oil in the dyeing operation. Ordinarily we believe that best results in finishing will be obtained by giving dyed goods only a cold water wash after dyeing, and no further aftertreatment. Another thing to be avoided is over-drying of the goods in the extractor. We advise that 60 to 70% moisture be left in the goods when they are taken out of the extractor. This percentage can be determined by timing the extractor and weighing a few lots of the extracted goods. With goods that are properly extracted and are boarded on forms not too hot, so that the drying operation will be carried out slowly, the finish should come out satisfactory in every respect.

In the matter of spraying hosiery while on the form, we have known this to be done; but it is far from the general practice.

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Sizing Braided Shoe Thread

Technical Editor:

The enclosed sample is braided shoe thread with the sizing put on after braiding. Will you please inform us how this is put on and the kind of solution used. *(7590)*

This material, after braiding, is run through an ordinary dressing or glazing machine, such as the Luther Machine. This equipment consists of a size box, a large cylindrical brush (about 4 ft. long and 3 ft. in diameter), and some sort of a take-up mechanism. Below the brush is a series of steam pipes.

The brush revolves at considerable speed and draws the heat from the steam pipes upwards to dry the size-saturated material as it passes over the brush; and at the same time, the friction of the bristles puts a polish on the braid.

We should say that the solution through which the present sample was run was probably a light starch mixture; possibly ¼ lb. of soluble potato starch to 5 gal. water. Often on this type of goods, however, a small amount of bees-wax or paraffin wax is added to the solution.

Inquiries should give the fullest information possible; and if damaged material is involved, a sample should be sent. We do not give consideration to anonymous inquiries and do not undertake routine analysis of yarn or fabric, or investigation involving unusual expense.

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Weighting Four-Thread Crepe

Technical Editor:

I am having trouble in getting 80 to 90% tin weighting on a four-thread crepe. I am giving the crepe four passes through phosphate at 6° Be. and 145° F. and silicate at 2° Be. and 145° F.

Kindly advise me if it is proper to use acetic acid in the phospate. If so, how should I use sal soda in the phosphate? How should I keep my tin? The most I am getting is 65 to 70% weighting. *(7575)*

Failure to obtain 80 to 90% weighting from four-pass tin work may be due to a variety of reasons. The tin liquor may not be strong enough or it may have too much or too little free acid in it. The tin liquor should contain between 0.4 and 0.5% free hydrochloric acid to obtain the best results, and the temperature should not be above 65° F. The strength should be between 25° and 30° Be. After the tin treatment, the silk should be washed well in cold hard water. The phosphate bath should test about 6° to 7° Be., and the silk should be treated at a temperature of 150° F. for 1 hr. The phosphate bath should be slightly alkaline. When the phoshpate bath is used for four-pass work, it often becomes acid, due to incomplete washing of the silk from the tin bath. This acidity should be corrected with either sal soda or ammonia. Add just enough to turn red litmus paper blue. Acetic acid should not be added to the phosphate bath.

After the phosphate bath, the silk should be well washed in warm water at about 120° F.—possibly two or three warm waters and one cold water—and extracted well before going into the tin liquor again. It is also advisable after the third pass, to acidify the last cold water with hydrochloric acid. This will prevent the silk from carrying too much alkali into the tin bath.

It is recommended to treat in a 5° Be. silicate bath at 135° F. for 1 hr. Of course, the silicate bath follows only after the fourth pass of tin-phosphate. After the silicate bath, the silk should be washed in two hot waters and then given a good strong soaping; about 20% of olive-oil soap is used at 160° F. for 1 hr. After the soap killing, give one hot and one cold water. If the silk is intended for black, the silicate bath is omitted after the fourth phosphate bath; and after the soap killing, the silk is extracted and goes directly into the required amount of logwood extract.

Overseers' Round-Table

THIS department offers a new subject for discussion each week and gives readers' comments on problems introduced during previous weeks. The subject which was opened four weeks ago is closed this week and a summary of contributed ideas is given on opposite page

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On Textile School Students

Editor, Overseers' Round-Table:

TRUE INDEED it is that it is quite expensive to train young textile students, so it only leaves to be proved whether or not it will pay in dollars and cents.

I have in mind one company that had a rule of taking one textile student each summer and of giving him the chance of going to work for the company when he finished school. At this time three-fourths of the superintendents of that company's mills are textile graduates. I had to learn and so did every other man that enters the textile industry. The time of concealing every bit of knowledge that we have gained has passed.

I shall never forget some of the difficulties that I encountered in working through the different departments of the mill. I have observed that the overseer who was always quick to show the other man was the one who was always quick to learn from the other man and the one who has made a success. C. F. P.

Editor, Overseers' Round-Table:

YOUR DISCUSSION of the employment of students during the summer has interested me and I believe that some of your readers may be interested in an opinion from a textile school.

Business, textile or otherwise, is not a charity institution and should not employ students, or anyone else, on the basis of charity or philanthropy alone.

The plants that have been most successful in employing students during the summer vacation period usually depend upon the teachers to suggest and recommend the most suitable students for the type of work to be handled. The summer contact with the student gives the employer an idea as to whether he wishes to employ this young man permanently. This alone is often worth the full amount paid for the summer's work. At the same time it gives the student a better knowledge of, and some experience in, the line of work in which he may be employed after graduation. If the student is properly handled and encouraged this work often gives him considerable incentive to do better and extra work during the college year.

It is true that many college boys are not worth summer employment, but if the right type of boy is selected and properly encouraged, it is possible to secure some really good work and sometimes an idea or two that may be worth while. If properly selected, they are worth just as much on most mill jobs as the ordinary unskilled workman, and are entitled to the same pay, no more. This should be sufficient to pay living expenses.

My advice to all mills is to employ only students or graduates that have the *full recommendation of their instructors for the particular type of work to be handled.* We have given this subject particular attention at Clemson and are very careful not to recommend a boy unless we

Choosing a Man for Ad

"WHILE I was down at the beach for the week-end," Superintendent Chase started the meeting off, "I met a man who is super in a mill about 50 miles from here. I hadn't known him before, but as soon as we found out that we were both in the textile business we did the usual thing in ignoring our families and going off in a corner to talk for a few hours. Well, we talked of this and that, but I was particularly interested in a problem he is now facing. Work has been piling up on him to such an extent of late that the treasurer suggested that he appoint an assistant superintendent to help him out. Now, this friend of mine says he has two overseers in mind for the job. One has been with the mill for about 25 years and is a good steady man. The other is very much younger and has only been with the company four years, but is smart, full of pep and right on the job every minute. My friend doesn't know whether he should recognize the long years of service of the older man and give him the job, or whether he should choose the younger man because he will probably develop into a better assistant. What do you think he should do?"

"I think that he should give the job to the old-timer," Bill offered. "I don't think that there is anything which sours an organization more than having a youngster pushed ahead of those who have worked for years and done a good job. It makes a man feel as though he didn't amount to anything when no one seems to appreciate years of faithful service. This younger man your friend speaks about may be brilliant and all that, but I think it would be safer, in addition to being more human, to give the older man the job. Anyone who has worked up through the organization and spent so many years at it knows what it is all about and can be depended upon to do a good steady job if he is advanced. A younger man may turn out eventually to be worth more, but you are always taking a chance of him turning out very bad. I think you play safe when you advance the older men and I think it is the right thing to do from the standpoint of keeping everybody happy. I'm in favor of advancing according to length of service wherever possible."

Advancement

"I'm decidedly not in favor of any such thing," Pete spoke with some heat. "I don't think that there is anything that will make a grave yard of a mill quicker than a seniority rule. In these days an organization has to be on its toes every minute, and one of the ways of accomplishing this is to promote on ability only. What sort of an organization will you have where every one knows that all he has to do is to sit around, not to do too many things wrong and wait for the man above him to die? You'll have a bunch of old fogies who want to play safe, that's what you'll have. If a man's years of service don't mean that he has accumulated enough knowledge so that, if advanced, he can do a better job than a younger man, then he ought to step aside and let the express train go by. How many bright youngsters would stay with a concern if they have to figure out their chances of advancement according to the death rate? Not many. I don't think that length of service should enter into the question at all. In a good man length of service means greater ability, so judging on ability really covers this point, but if someone else can show greater ability in fewer years he is entitled to go past the other man."

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Do *you* think that advancement should be based on years of service with the company or on ability alone?

Overseers and others are invited to discuss this and other questions brought up in the super's talks. Letters accepted and published will be paid for without regard to length. Brevity is desirable.

Editor, Overseers' Round-Table:

IN THE opinion of the textile students, Pete has the modern and correct attitude on a mill employing students for summer work. If the mills do not expect to employ more men when their present help have died, then there is no advantage in training more men, but the mills which expect to continue to run must train men who are capable of operating the mills.

In considering the cost of training men the mill cannot help gaining in the long run. If the student spends his summers in the mill he has an opportunity to study the mill's problems. The next year in school he will try to obtain efficient solutions to these problems. When the student returns to the mill the following summer he will present, and apply, what he has learned from his study in school. The mill officials can accept, or reject, these suggestions as they see fit, but it gives the men an opportunity to stay abreast of modern methods. The second summer will be most advantageous to both the mill and the student. Upon being graduated, the student who has been trained is able to start in the mill and be an asset, rather than one who has waited until this time to be "shown through."

There is no fear of a student causing ill feeling among the workers; he realizes that he is a worker and conducts himself as one. N. C. STATE COLLEGE TEXTILE STUDENT.

Qualifications of an Overseer

Editor, Overseers' Round-Table:

WERE MANAGEMENT to require an overseer to excel in but one qualification most of us overseers would no doubt be glad to have that particular one outlined to us and we could then bend our efforts in attaining perfection in it. However, real every day weave room or mill duties of the average overseer call for many qualifications all about as essential.

Let's start with loyalty: surely that's an important one, but does it rank higher than practical knowledge, confidence, ambition, enthusiasm, reliability, initiative, energy, persistence, self control, or a lot more. Are they not all valuable qualifications? They all build up to one real, desirable business requirement and that is character.

The combination of physical and mental ability develop character. Given this much as a foundation, management can pick its men for overseers and give them plenty of good training aids, such as intrusting him with responsibility, can see how he acts and constructively criticise him. When you do this he will soon measure up to the standard of any good business; and that is production results or results on the right side of the ledger. R. A. MERCIER.

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Summary of Discussion on Textile School Students on Vacation

The vote was overwhelmingly in favor of employing textile school students during their summer vacations. Replies favoring the plan stressed the point that many of the boys returned to the mill after being graduated, and that the mill thus secured the benefits of the time and expense spent in training, and also stated that, even if this were not true, enough could be gained from contact with new ideas to make it worth while. The humanitarian aspect of giving the youngsters a chance was also brought out. A few of the replies dwelt on the disadvantages and believed particularly that no student should be taken on if it were necessary to let a regular worker out to make room.

are sure that he is a worker and adapted to the type of work required. On this basis our students have been remarkably successful in every case.

The fact that some of the largest and most successful companies in the United States regularly employ college students during the summer, in order to train and select the men to be employed after graduation, indicates that the plan has merit. Some of these concerns have followed this policy for many years. CHAS. E. MULLIN.
Head, Division of Textile Chemistry, Clemson College.

New Machinery *and* Processes

Wide-field tubes with and without tripod

Wide-Field Tube

EXAMINATION of fabrics at comparatively low magnification is facilitated with the wide-field tube brought out recently by Bausch & Lomb Optical Co., Rochester, N. Y. This instrument is a link between the hand magnifier and the standard microscopes. It is a complete wide-field, low-power microscope, however, and has many uses in the shop or factory. When it is equipped with a tripod, the wide-field tube is used in much the same manner as a hand magnifier, but has a working distance several times greater, thus permitting the observation of work at a distance of several inches from the objective lens.

The instrument is of particular value whenever the work demands more careful observation, greater working distance, and higher power of magnification than is afforded by hand magnifiers. It is useful in the textile industry for the determination of weave, for the dissection and analysis of yarn, the identification of mixtures used, the quality of the individual fibers, etc. It can be carried in the pocket for summary examinations; or in the case of the salesman, for purposes of demonstration.

Automatic Starter and Flexible Coupling

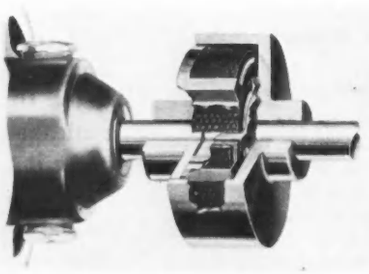
THE Rawson automatic starter and flexible coupling for reducing starting load requirements and absorbing shocks and vibrations has been announced recently by the Washburn Shops of the Worcester Polytechnic Institute, Worcester, Mass. This device is a simple means of reducing starting loads and absorbing shocks and vibrations. It consists of two cast-iron members, one attached to the driving shaft, and the other to the driven shaft. Between the driving and driven members are inserted floating segments made of brake lining reinforced with lead, a sufficient amount of lead being used to give the required pressure on the friction surfaces for carrying the load. Clearance is allowed between the driving and driven members and also between the floating friction surfaces.

When power is applied to the driving shaft, the shaft comes to the required speed almost instantly, as there is as yet no resistance to its action. With the application of the power, centrifugal force begins to act on the outer set of linings. There is sufficient lag, however, to allow the driving member to come to full speed before centrifugal pressure takes effect on the driven member. In addition, the design is such that the centrifugal action on the driving side is never greater than the motor rating.

In order to give sufficient overload capacity, a second set of centrifugal friction linings is introduced on the driven side, thus giving an auxiliary source of driving. The starter is designed so that the outside or starting frictional linings can never exert a greater capacity than the rated motor horsepower or driving power. The overload requirements are taken care of by the inner set or overload frictional linings. These act only as fast as the driven side comes to speed.

This starter is usually applied to motors, but may be applied to other types of driving units, or to the driven unit. Likewise it can be arranged for direct connection, gear, chain, V-belt, or flat-belt drives. The starter will operate in either a horizontal or vertical position, or in either direction of rotation.

Among the advantages cited for this equipment are that it greatly reduces peak load requirements for driving units; absorbs shocks and reduces wear and tear to both driving and driven units; allows standard motors, and in many cases smaller motors, to be used; and also serves to improve the power factor.

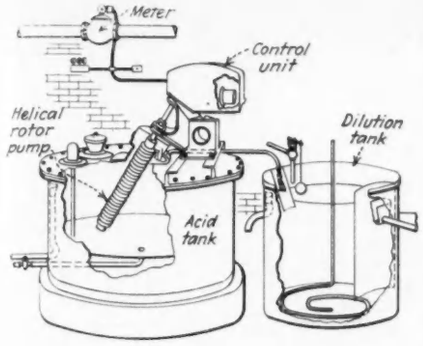


Automatic starter for reducing starting-load requirements

Electro-Chemical Feed

AN IMPROVED electro-chemical feed, designed to give truly proportional feeding and to eliminate the danger of overfeeding and underfeeding, has been announced recently by the Permutit Co., 440 Fourth Ave., New York. This equipment has numerous applications in the textile industry where exact feed control at wide ranges of flow is essential. The electro-chemical feed consists essentially of a meter, control unit, helical rotor, pump, chemical tank, and mixing tank.

In operation, the flow of water through the meter rotates a cam. Each time a given volume of water has passed through the meter, the cam makes an electrical contact, closing a circuit which starts the motor in the control unit. The motor rotates the helical rotor pump at constant speed and also rotates a second cam for a definite period of time, after which this cam breaks the circuit, thereby stopping the motor. This cycle is repeated when the meter makes the next contact and starts the motor again. Thus the meter makes the circuit and the motor breaks it. The helical rotor pump operates on the screw principle, so that each revolution withdraws a definite volume of chemical solution irrespective of the level of chemical in the tank. Since the motor operates for a definite period of time in each cycle, the helical rotor turns the same amount in each cycle. Consequently there is a definite volume of



Electro-Chemical Feed; proportionating helical Rotor-Type D

chemical fed per cycle to a given volume of water. The chemical is discharged from the upper end of the rotor, whence it flows by gravity to a separate dilution tank.

Features of the improved model are that no external load is placed on the meter, giving accurate feeding at wide ranges of flow, and that the control device does not come in contact with the chemical solutions being fed and hence are not subject to corrosive action. Other advantages cited include ease of adjustment; signaled operation; and absence of orifices, valves, or small passages to become clogged.

Floating Motor Drive

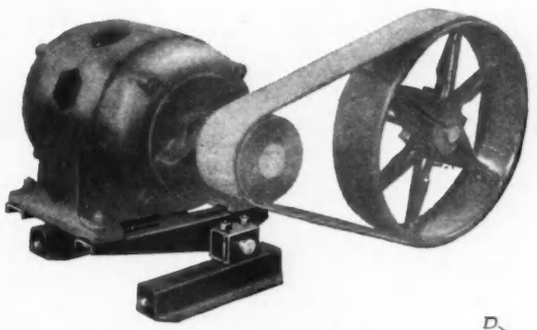
USE of short belt centers and elimination of idlers or belt tighteners on various types of belt driven machinery is made possible with the floating motor drive developed by the Kritzer Co., 515 West 35th St., Chicago. This type of drive utilizes motor torque to regulate belt tension regardless of outside conditions, and is said to exert just enough pressure to maintain friction contact without unduly stretching the belt. The floating motor drive consists essentially of an adjusting screw for belt length, a locking nut to maintain belt line-up permanently and to eliminate rattling and wearing of adjusting parts, a pivot bar, and motor supports adjustable to different motor frames.

The position of the motor when not operating is such that practically all pressure is removed from the belt. When power is first applied, the inertia of the driven unit "locks" the rotor; and the motor reaction or torque causes the frame to revolve in the opposite direction to the rotor, thus putting extra tension on the belt during the starting period. After the load is up to speed, the floating motor drive maintains just enough pressure on the belt to prevent slippage. The operation of the drive is entirely automatic.

Other advantages claimed for this drive are that it reduces bearing friction and thus increases belt efficiency, eliminates belt slippage and excessive belt noise, and obviates manual take-up of normal belt stretch. The floating drive is applicable to either flat or V-belts and can be floor, ceiling, or wall mounted.

High-Speed Endless Belt

ENDLESS fabric belts designed for high-speed, small-pulley work have been placed on the market recently by L. H. Gilmer Co., Tacony, Philadelphia. These belts, known as Speedage belts, are furnished in light, medium, and heavy weights, and in different number of plies. Advantages cited for these belts are that there is no high point in the belt which might produce vibration when operating over a pulley at high speed, and that they are so constructed as to give no appreciable slippage.



Floating motor drive utilizes motor torque to regulate belt tension

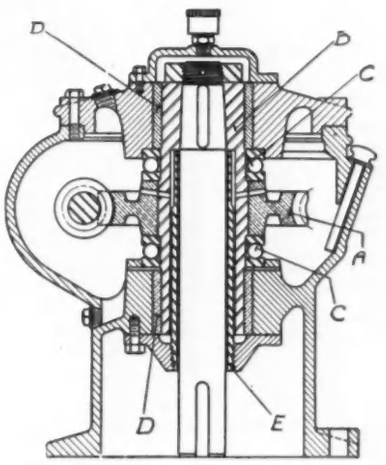
Speedage belts are built from tubular endless woven fabric by sewing together superimposed folded layers of the fabric. These folds are made in such a way that practically a selvage edge is formed by the warp cords. This construction is designed to eliminate early fraying. The belts are built of high-grade cotton yarns, carefully tested and pre-stretched before being used. The yarns are then woven in a special design of tubular endless construction in such a way that the heavy warps or pulling cords run parallel to the direction of the belt. These warps are held in place by filler cords which occupy very little space, but which give an added strength and a much greater elasticity to the belt structure itself.

Endless fabric belt for high-speed applications

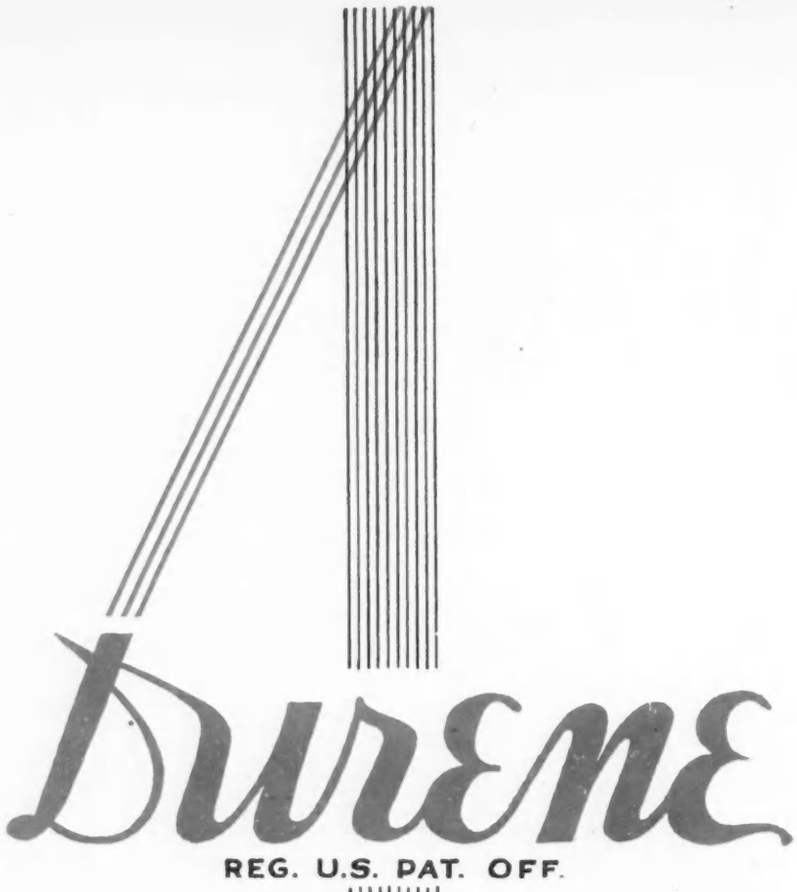
Leakproof Speed Reducer

FOR use in applications where the slightest leakage of oil is liable to contaminate and damage the product in process, Foot Bros. Gear & Machine Co., 111 North Canal St., Chicago, has developed a leakproof, vertical speed reducer of the worm type. The leakproof feature is of simple design and can be incorporated in any of the vertical Hygrade units manufactured by this company.

The means employed to make the vertical reducer oil leakproof are shown in the accompanying illustration. The bronze worm gear ring *A* is pressed on a splined hollow steel center *B* and is held rigid on this center by two flat ball-thrust bearings, *C*. This complete arrangement is mounted on bronze bearings, *D*, and the hollow center is fastened to the vertical shaft at the uppermost part of the reducer, thus forming a cavity below this point for nearly four-fifths of the entire length of the shaft. In this space is placed a tube, *E*, which is sealed and fastened to the lower part of the reducer, from which it extends upward to a point well above the oil level. At the top the opening of the tube is covered by the steel center *B*. This prevents any oil from leaking out and forms two chambers—one in which the worm gear operates, and the other in which the vertical shaft rotates free from the contact of oil at all points.



Vertical speed reducer



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◆ *Survey of Fabric, Knit Goods, Yarn and Raw Material Markets* ◆

TEXTILE WORLD ANALYST

Sustained Recovery in Silk Still Out of Sight

By Dr. L. H. Haney

THE silk manufacturing industry has lately been suffering from "profitless prosperity," at least so far as the sales of most silk goods are concerned. Business has been of good yardage, but at prices which do not cover costs. Strikes, voluntary curtailment, and liquidation of stocks have done something toward restoring a balance between supply and demand of silk textiles. But the trouble did not arise recently and will not be eliminated quickly. Producers were too optimistic last year and early in 1931. For the present, further curtailment is advisable, at least until the chaotic conditions in the goods markets are eliminated—especially since general business conditions promise to furnish no early impetus in the form of increased consumer buying power. While trade reports indicate that hosiery manufacturers may soon be in a position to increase their purchases of raw silk, there is no prospect of an early revival of silk textile demand sufficient to stimulate the raw silk primary markets.

The Japanese situation is highly uncertain. Protests have been made against the liquidation of custody silk during the cocoon marketing season. Rumors are thick as to the plans that may be adopted to aid the marketing of cocoons. Apparently the Japanese are in some danger of repeating the blunders we made in marketing our cotton; that is, trying to support the market with public funds while using moral suasion to bring about reductions in the new crop. Such methods did not prevent cotton from going to new low prices, and the prospects for success in the silk market appear to be little better. Temporary stability is the best one could hope for. Probably free marketing of cocoons now would bring new low prices for raw silk even though plans for the liquidation of indemnified silk were suspended.

The domestic market has tended to lag behind the primary market, but new low prices are distinctly possible.

Bull Points

1. Syndicate stocks of raw silk in Japan are not being dumped, pending the marketing of spring cocoons.
2. Sales of raw silk in Japan increased more than usual in May and were in excess of receipts; stocks declined.
3. Stocks of raw silk at New York at the end of May were the lowest for the month since 1926. Certificated stocks are the lowest since the National Raw Silk Exchange opened in 1928.
4. Raw silk is priced low enough to compete with rayon.
5. May deliveries to mills increased more than usual for the season.
6. Stocks of silk goods (yards) decreased in April and were the lowest in recent years.
7. Strikes in silk mills and curtailment programs are reducing the supply of silk textiles.
8. Sales of silk goods (yards) increased over March and were above last year; dollar sales at New York gained more than usual compared with March.
9. The hosiery industry position is somewhat improved.
10. Silk is cheap in comparison with cotton or wool.

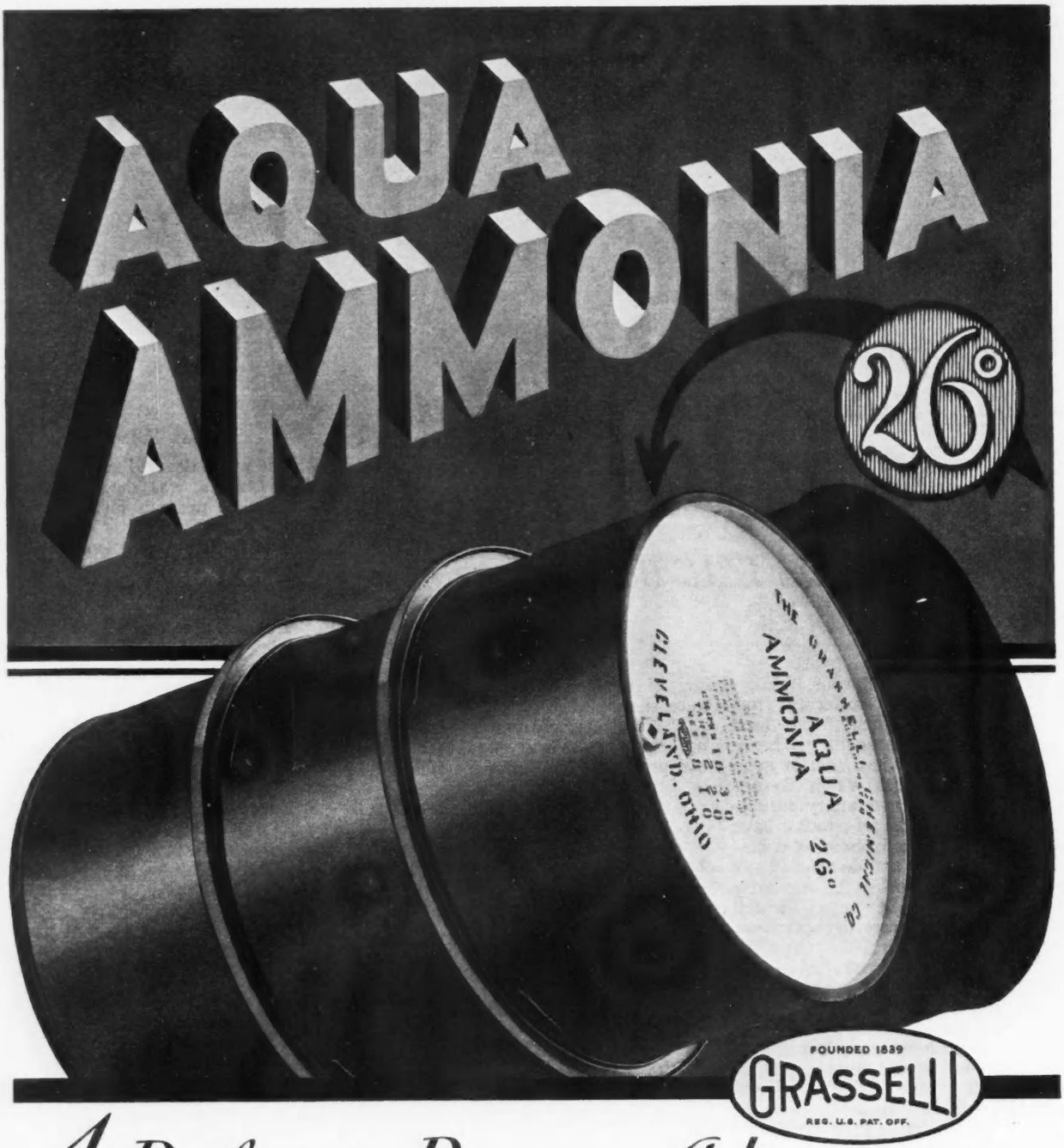
Bear Points

1. The world demand and supply position of raw silk was abnormal in May, as was the Japanese position. (Raw Silk Exchange).
2. The world visible supply increased again in May and was larger than last year; the larger quantity of silk in transit tends to offset the small stocks in the United States.
3. The sale of a small quantity of syndicate silk in Japan put the market down to a new record low.
4. The marketing of the spring cocoons in Japan is expected to depress the market further unless supplies are withheld; financial conditions discourage private extension of credits.
5. European advices indicate a weak demand for silk and liquidation of old supplies.
6. Spindle activity decreased more than usual in April.
7. Thrown silk prices have weakened recently.
8. Silk goods prices are often below production cost, indicating overproduction.
9. Strikes in silk and hosiery mills reduce the demand for raw material.
10. Rayon is offering keen competition; lower cotton prices make silk seem less cheap.
11. Declining security and commodity prices indicate continued poor general business conditions.

While the foregoing analysis in several respects offers more encouragement than that of last month, the raw supply situation in Japan overshadows other considerations. The increase in sales

Summary: **The statistical position of raw silk does not seem to have improved sufficiently to warrant any sustained recovery in prices. The new lows touched in Japan suggest that a lower level may yet be reached here. Despite the large yardage of silk goods sold, prices are not strong enough to help the raw material in the near future.**

The analysis and forecast by Dr. Lewis H. Haney, director, New York University, Business Research Bureau, which regularly appears on this page, considers various branches of the textile industry from week to week. The conclusions reached in the Analyst are mostly forecasts and generally apply to a time two or three months ahead. The Analyst is based on statistical data and does not reflect temporary trade sentiment.



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of raw silk in Japan; the abnormally low stocks in the United States, the large volume of April goods sales, and the gain in deliveries to mills in May are all definite improvements over last month. However, these factors will probably have little sustained effect on prices as long as the silk markets are too weak to permit the marketing of withheld silk or the new cocoon crop without setting new low prices. Japanese markets may be temporarily stabilized if the policy of liquidating stocks is abandoned and credits are extended.

Statistical Position Better

The domestic statistical position improved in May. *"Deliveries"* to mills increased 3,600 bales or 9% as compared with the usual seasonal decrease of about 4%. The adjusted index, however, retraced only about one half of the April slump and was below the average for recent years. Machinery activity declined in April, but not nearly so sharply as the index of deliveries. Invisible stocks probably declined.

Imports of raw silk increased during May. This showing tallies with the report of increased sales in Japan. Compared with deliveries, imports are much higher than a year ago.

This means that silk in *storage* declined less rapidly in May than a year ago. But the decline this year was more than usual, for stocks usually increase in May.

The May statistics of the Silk Association may, therefore, be regarded as favorable for several reasons. (1) The gain in deliveries means larger takings by mills; (2) the increase in imports means increased demand for raw silk in primary markets; (3) New York storage decreased.

The stocks at New York and Yokohama accordingly showed a slight net decline after allowing for seasonal movements. Of course it is easy to overestimate the importance of the decline in stocks, because (1) there was a large quantity in transit at the end of May and (2) there is probably a tendency to hold back the cocoons in the interior of Japan pending more definite policies on the part of the government in supporting the market. In any case, the stocks continue far out of line with current production requirements as indicated by the index of machinery activity which was still declining in April.

The world visible supply increased in May and was larger than last year, but gain over April was less than in 1930.

Weak Price Situation

The average price of Cracks XX registered a new low last month. The May average of $2.32 compared with $2.52 in April and $4.24 a year ago. Early June prices have been weak, partly as a result of new record low prices for raw silk in Japan. Considering the general level of commodity prices, however, raw silk is not as cheap as it was last fall; since October, 1930, the general commodity price level has fallen more rapidly than has the price of raw silk. Since the supply and demand situation in raw silk is no stronger now than last October, the market here seems likely to make further new laws, as in Japan.

The April sales of silk goods increased more than usual. This was true of both the yardage sales reported by the Silk Association of America and of the dollar sales reported by the New York Federal Reserve Bank. Because of lower goods prices the dollar sales were below last year, while the yardage sales were considerably larger.

Replacement margins apparently improved a little in April as a result of lower raw silk prices, but the broad trend has been downward and recent price cuts in goods have no doubt offset the decline in raw silk. The curtailment that has come as a result of strikes and voluntary action thus far has not been sufficient to restore stability to the silk goods market. For this reason, it does not seem likely that the raw silk market will get much support from increased manufacturing activity in the near future.

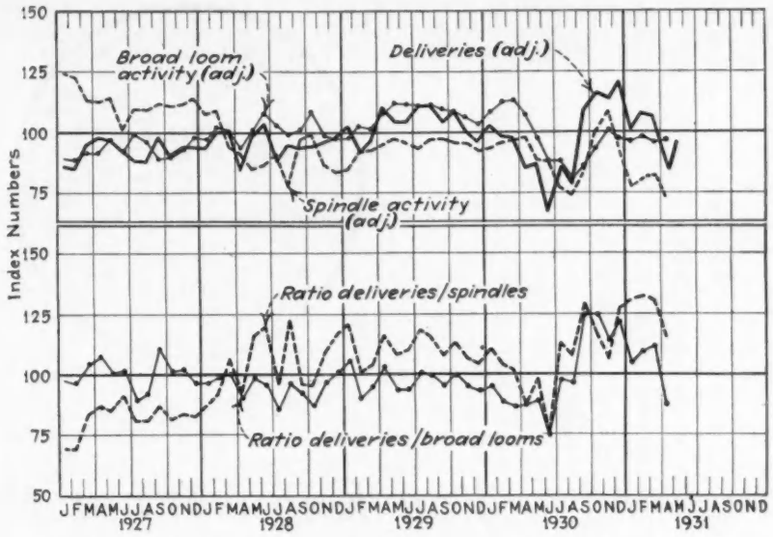
Broad loom activity (adj.)
Deliveries (adj.)
Spindle activity (adj.)
Ratio deliveries/spindles
Ratio deliveries/broad looms
Index Numbers
150
125
100
75
50
J F M A M J J A S O N D J F M A M J J A S O N D J F M A M J J A S O N D J F M A M J J A S O N D J F M A M J J A S O N D
1927
1928
1929
1930
1931

Fig. 1. INDICATED SILK CONSUMPTION. Deliveries—bales; Spindle Activity, Broad Loom Activity—per cent of normal machine hours operated. All three indexes adjusted for seasonal variation. Ratio of Deliveries to Spindles and Ratio of Deliveries to Broad Looms based on above indexes. Average of 1927-1929 = 100 for all indexes. Source: Silk Association of America

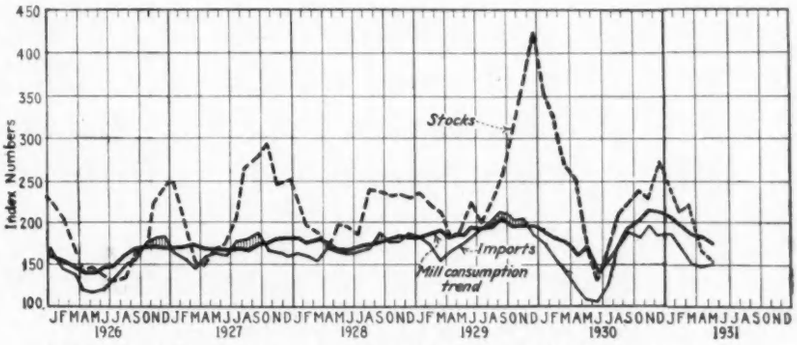
Stocks
Imports
Mill consumption trend
Index Numbers
450
400
350
300
250
200
150
100
J F M A M J J A S O N D J F M A M J J A S O N D J F M A M J J A S O N D J F M A M J J A S O N D J F M A M J J A S O N D
1926
1927
1928
1929
1930
1931

Fig. 2. STATISTICAL POSITION OF RAW SILK—Stocks of Raw Silk, Bales in storage at end of month. Average 1921 = 100 (Silk Association of America). Imports, Pounds. Average 1921 = 100. Three months moving average (Dept. of Commerce). Last month estimated by converting each item of Silk Association figures from bales to pounds and then applying the per cent increase to preceding month. Factory Consumption, Trend, Deliveries—Bales, average 1921 = 100. Five months moving average (Silk Association of America)

Market Briefs

Cotton: *Narrow fluctuations as sellers resist retrogression.*
Cotton Yarns: *Yarns steady as cotton shows resistance.*
Cotton Goods: *More active and prices are firmer.*
Wool: *Market best for finer grades; other sorts lag.*
Worsted Yarns: *Further evidence of improving stability.*
Woolen Goods: *Men's wear situation strengthens further.*
Silk: *Prices weaken after brief show of strength. Little buying.*
Silk Yarns: *Thrown and spun yarns both quiet. Outlook uncertain.*
Silk Goods: *Price-cutting makes buyers hesitant. General tone sluggish.*
Rayon: *Yarn call declines. Summer lull expected to be brief.*
Knit Goods: *Rush call for low-priced seamless mesh hosiery, retailing at 69 to 79c. Excellent swimsuit demand. Fall underwear begins to move.*

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YARNS AND RAW MATERIALS

TEXTILE WORLD ANALYST

◆Cotton Yarns Check Rapid Decline

RESISTANCE discovered in raw cotton has checked further rapid decline in cotton yarn prices. Both dealers and spinners show a firmer attitude in quoting prices on the limited business offered. This time of the year usually finds a seasonal dullness in buying, and this year is no exception. The middle of July, it is hoped, will see improved interest as a result of the low level of stocks of merchandise in both retailers' and distributors' hands.

Dealers are united in agreeing that fundamental conditions are very sound, with every indication of a good market if there is any encouragement. Limited supplies of yarns in consumers' hands are clearly indicated by continued demand for prompt deliveries. This will continue until buyers find a firmer price basis, or difficulty in securing yarns as they are needed. Stocks of yarns with dealers are also limited, so that it would not need much of a demand to exhaust these supplies. Curtailment of operating schedules by spinners has also reduced their stocks to a minimum, so there is no great pressure from that source.

Another point made by dealers is that spinners have a large volume of unfilled orders on their books because of inability to obtain specifications. More than one spinner would be operating full time if specifications were received against these orders.

New business continues to be scattered with the usual call for prompt delivery. Carded knitting yarns are more active than weaving. Indication of the price attitude is shown in 20s-2 recently sold as low as 17½c.; the lowest price now noted is 18c., with better grades of yarns quoted by spinners from 18½ to 20½c. This count is said to be in limited supply in stocks on hand.

Combed Yarns Quiet

Combed yarns are quiet with only scattered inquiry. Deliveries are fairly well maintained, especially in single yarns. There is also some little filling-in business in stock shipments of thread yarns. No marked change is noted in prices. If a customer shops around there is an even chance he may shade the prices usually quoted.

New Uses Developed

Mercerized yarns find limited sales, with prices fairly well maintained. Deliveries are not so satisfactory as some would like, but several mercerizers report limited orders on their books. Undelivered sales balances with these mills are reported lower than usual, and the market is regarded in good condition with manufacturers taking yarns as needed. Improved prospects due to new outlets are also noted. New and attractive fabrics in knitted outerwear for sport dresses and other lines are expected to require a good volume of mercerized yarns, while lisle and the popular mesh stockings likewise are proving satisfactory consumers of yarn.

◆Cotton Steadier Following Decline

THE cotton market has shown a steadier undertone since the recent decline to the 8½c. level for October contracts. So far as indicated by current comment, there has been no special change with reference to ideal crop possibilities, but the low level of prices has had a tendency to check aggressive selling, promote covering, and bring in a little more trade buying as well as some quiet investment buying on the set backs. This has been reflected by advances extending up to 9.23 for October this week, making a recovery of about $2.50 per bale, or 70 points from the low levels of June 8. It is a question whether this recovery has been so much the result of increasing confidence in values as of a technical readjustment following severe declines which had probably left a considerable short interest outstanding. There may also have been some uncertainty as to the showing of the end-June crop reports of the Government acreage estimate on July 8 which would naturally have a tendency to cause evening up of commitments. In a general way, however, it is felt that cotton goods selling at prices based on raw material costs of around 8½c. ought to be freely merchandised in the long run, and that this price in the New York market represents a price below cost of production in the interior of the South.

Of course, while ideas of values are being continually upset by the action of security markets and various evidences of over-production, there is no general urge to buy any commodity on the basis that it is selling below cost. But recent sales of cotton goods at very low prices have undoubtedly stimulated retail distribution to some extent, and costs of production will tell in the long run, even though traders wait for them to be reflected in output and distribution.

Prospects for New Crop

The crop seems to have been making fairly good progress. Needed rains have fallen during the last week while temperatures have been about normal and it seems that the condition would score the usual June improvement. If anything, however, traders are a little more inclined to consider the factors which would appear to be against a normal yield per acre. There are two of these which are chiefly emphasized. First, the reduction in the use of fertilizer in connection with which there are some who claim that it will be less per acre than during any season, probably since 1921. Second, there is the matter of possible insect damage. The weekly report of the South Carolina Experiment Station at Clemson College stated that infestation was increasing; that so far very little poison was being used in the infested fields. There have also been increasing reports of the boll weevil in South Texas.

On the other hand, cultivation is said to be good, the plants, while small, are said to be healthy, and there is undoubtedly plenty of cheap labor to cultivate where necessary if the planters are disposed to employ it.

Estimates of the reduction in acreage so far published are pointing to a reduction of from about 8 to 12% and it is not unlikely that a canvass of the trade at present would indicate an average expectation of a reduction in the neighborhood of between 10 and 11%, perhaps somewhat over 10½%.

July liquidation in the market here, thus far, has been readily absorbed by spot interests against sales of the later months at the existing premiums. At these premiums, comparatively few notices would normally be expected, but according to some reports from the South a considerable amount of cotton may be tendered on July if the difference between July and October does not go to something over 40 points. There has been a better demand in some of the southern markets in the past week.

Memphis Sales Improve

MEMPHIS, TENN., June 15.—While sales of cotton at other southern centers during the week were very light, Memphis sales, season considered, reached a fair total, although only 100 bales of the total were sales on the spot. The small unsold stock here and fact that it consists mostly of "overs" makes business in the local market more than ordinarily dependent upon f. o. b. transactions. There was some evidence of banking pressure for additional collateral, or liquidation as an alternative, because of recent declines in values but that pressure was not distinctly reflected in any increased selling pressure. The larger volume of sales, compared with other markets, indicates revival of interest in specialties, with interest centering in the medium and better grade 1 1/32 in. and longer, mostly for prompt shipment in small lots.

The staple association says their sales are limited only by their ability to supply the qualities demanded and that inquiry is confined to no particular group of mills or section of the manufacturing industry. This is fairly well in line

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YARNS AND RAW MATERIALS

TEXTILE WORLD ANALYST

with what merchants are saying but the consensus of trade opinion here is that the most important effect of anything approaching a tight supply situation will be to relieve the new crop from the weight of an important carry-over. Basis remains about unchanged from previous weeks and no important change in basis appears to be expected. There is some new crop inquiry, regarded as feelers, but little or no orders have resulted. Sales during the week totaled 5,980 bales against 2,594 last year and 8,207 the year before.

The week was favorable for the crop in this section and throughout most of the belt, although there was more rain in Oklahoma and parts of Texas than was needed; moderate rains would be beneficial elsewhere. Most of Georgia is very dry.

◆Cotton Dominates Waste Market

THE cotton waste situation is dominated by the movements of the raw cotton market, consumers and dealers watching the ups and downs of the raw material, and governing their operations in the waste market accordingly. There seems to be an entire absence of forward buying, business being done only when a user, having need for a certain type of waste, can pick it up at what he considers a fair price. An exception to this statement might possibly be made in the case of peeler strips, demand for which continues relatively good.

Percentage prices on comber and strips are unchanged, but flat prices fluctuate in sympathy with the value of spot cotton at the time of sale. Small lots of picker were sold this week to mattress and upholstery interests at around 3c. for average qualities, with the better grades being held for ½ to 1c. more. Linters, threads and low-price materials are dull and featureless.

◆Worsted Yarns Await Developments

NO UNUSUAL developments are noted in worsted yarns. New business continues in scattered fashion. Prices show no change, but dealers still complain of the lack of profits due to keen competition for what business is offered. Practically all lines of products have had a delayed season due to hesitancy in buying yarns. Deliveries as a result have been an important factor in an effort to put finished goods on the market in time.

An instance of this situation is noted in that some retailers are taking deliveries of bathing suits up to August. This is unusual as by that time the season is considered pretty well over. However, owing to delays in placing orders, it is impossible to complete deliveries before that time. Bathing suit mills are now generally winding up the present season, with scattered filling in of yarns to complete orders on hand. Occasional spurts are noted in yarns for infants' knit wear for fall. Most of this is for prompt delivery, although some immediate business is also found for spring shipments. Good white yarns in 50s to 54s qualities have found some call.

Prospects are said to be good for men's and women's coats for the coming season. Most of this calls for single 18s Bradford yarns, but some business will be available for French spun. Many manufacturers of bathing suits are said to be somewhat apprehensive over the situation in Australian wools for zephyr yarns. With Japan's purchases reported in heavy volume, remaining wools are held at high prices. It is a problem just how well buyers here will be willing to meet prices for these yarns considered so essential by many knitters for pastel shades. It seems that their only alternative would be to buy zephyrs out of domestic wools or blends as free as possible of black hairs.

Await Dress Goods Trade

Dress goods manufacturers are still awaiting word on showings of samples of new fall lines. It is expected this should develop by next month with another delayed season. While requirements are still uncertain in the New York market, it is expected there will be some use of wool crepes again this season. Fancies are expected to lead and therefore until it is known what styles are accepted, requirements are an unknown quantity. Woolen piece dyes are expected to find some business also, but here again no definite indication of trends are reported.

In men's wear fabrics the bulk of the business in goods and yarns is evidently placed. Some duplicate business can be expected up to the middle of July, as at least one manufacturer is known to have orders running to September with others also running well on fall heavy weights. It is noticeable that those manufacturers who installed new automatic looms have enjoyed a good season, with these looms in full operation. With the end of the current season, sampling has already been under way for the next season, with special attention paid to twists and mixes which have been so popular for these last few years. The continuance of these yarns in demand suggests a continuance of men's wear styles similar to those now current, though increasing interest in fancies such as is forecast may further enlarge the use for twists and mixes in the men's wear field.

◆Quick Delivery Asked on Wool Purchases

THE wool trade is encouraged by broader mill demand, and, while individual purchases are in moderate volume, a larger number of sales total a substantial aggregate. Fine wool continues to have the call, while is as it should be with the domestic clip running mainly to merino qualities. Prospects are believed to be brighter than at any other period this year. Activity in wool manufacturing is making further gain, and it is becoming apparent in the New York goods market that stocks of desirable fabrics are well cleaned up and that buyers who have delayed purchasing are now beginning to realize that they have overstayed the market and that quick deliveries are not available.

Wools arriving from the West in large quantities are being graded as rapidly as possible. A large quantity of wool this year has been sold in original bags, chiefly fine French combing types which a mill can take directly into manufacture. Merino and near-merino domestic wools furnish the bulk of the business. Much of the original bag fine wool is going to the mills, priced around 55c., choice French combing up to 58c., Best Texas 60c., strictly staple Montana 63c.

A feature of the market at this time is the demand for prompt delivery on new purchases which can be met in most cases where original bag wool is wanted, but when graded sorts are required the wool district is rather behind hand. Total receipt for year to date is considerably large than a year ago. Although the supply is far in excess of the demand at the moment, this is the usual situation at this season of the year and it is encouraging to the trade to note that prices, instead of weakening under the increased accumulation, are not only firm but tend to show enhancement.

Dealers continue to stress relative mill neglect of medium domestic wools. This seems rather difficult of explanation in view of increased consumption of these grades month by month for the year to date. It is possible that the mills are utilizing their old stocks of medium raw material, just piecing out with purchases on a small scale. In any event better demand for 56s and 50s ought to appear shortly. The high three-eighths blood, 58s, meets with a greater favor than the straight 56s and the choice wool of this grade approaches the low half-blood and so comes within the circle of fine wool.

Fleece wools, including 56s and finer grades, are moving more freely than last week. Ohio and similar strictly combing 64s and finer wools are firm

—so they put it up to the BRINTON Experimental Department

More than one textile mill, faced with the problem of producing a new type of merchandise, has "put it up to" a Brinton man and our experimental department—with extremely satisfactory results. For Brinton makes—or will make—precisely the Knitting Machine you *want*. Brinton makes many types of Rib Knitting Machines and Open Top Jersey Knitting Machines in all diameters. Remember, the experience, knowledge and inventive genius of Brinton Engineers, gained working with mills in all part of the World, is entirely at your disposal.

RIBBERS—of every type.
JERSEY MACHINES—Plain and Fancy Stitches.
RIB BODY MACHINES—for underwear and bathing suits.
SWEATER MACHINES—Rib and Jersey types.
SPECIAL KNITTING MACHINES—from $\frac{1}{4}$" to 36".

H. BRINTON COMPANY
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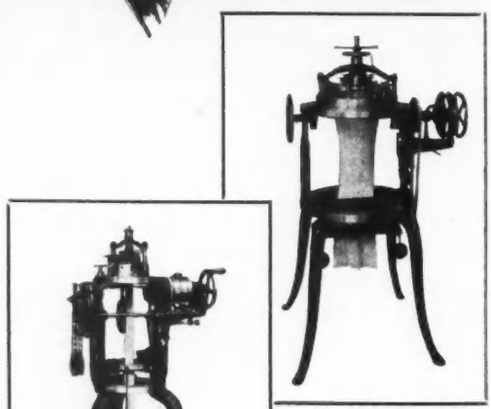
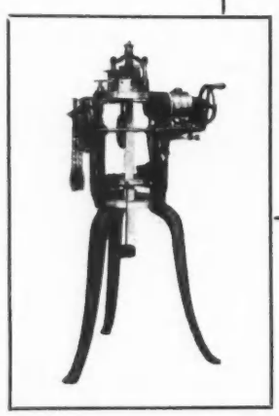
New York Office, 366 Broadway



Plain Rib Body Machine



Single Feed Ribber

CIRCULAR KNITTING MACHINES

BRINTON

of EVERY Kind for EVERY Purpose

YARNS AND RAW MATERIALS

TEXTILE WORLD ANALYST

at 24 to 25c., in the grease, or 60 to 63c., clean basis. The market is firmer on 58s, 60s strictly combing fleeces at 21 to 22c., in the grease, or 39 to 42c., clean basis.

◆Wool Substitutes Make Little Gain

RECOVERED wool manufacturers are hopeful of the future, and while they can not report any change of importance in the mill attitude, which is still dominated by hand-to-mouth purchasing, they feel that the worst has been passed and that better days are ahead. The appeal of cheap rags of all classes and colors will ultimately result in substantial purchasing, it is believed.

Interest in light hoods is the main feature of the woolen rag market. Dealers are looking around for lots and finding supplies quite scarce. Grading of mixed rags has been on a limited schedule for several weeks so that it is difficult to meet the better mill demand by immediate deliveries. Dealers are trading among themselves on a 13 to 13½c. basis and the mills, it is understood, are willing to pay 14½c. for a good rag at this time. Other rags are moving slowly atlhough fine light merino seems to be doing a little better. Coarse light merino is considered one of the cheaper of the good rags available to mill users at this time. White sorts are not in any special demand. The price of mixed rags is considered favorable for larger operations on the expectation that further requirements will have to be met in the near future on fine light and coarse light merinos, and especially on light hoods

Raw materials for woolen mills continue in limited demand and as wastes from the worsted mills constitute a most important class, business in these commodities continues dull. The general line of prices for good materials is unchanged from the beginning of the month, the best white lap around 70c., choice fine hard-ends 55c., the best worsted 27c. Colored wastes are in slow call but the output has been far from large.

The lower priced wastes are in moderate demand, some choice fine worsted card selling at 27c.

Although the noil market is considered dull, there is a fair volume of material being moved. Influences that have brought about the large accumulation of short Texas wool have to some degree affected also the fine noil market. At the present time fine domestic noils are quoted 43 to 45c. and fine short Texas wool is quoted 45 to 47c. clean basis. Quarterblood noils are as firm as any grade in the market.

◆Lull Follows Active Thrown Yarn Buying

SUDDEN strength shown in raw silk had a tonic effect on thrown yarn; prices jumped 15c. on most grades. The rise was interpreted by knitters and weavers as a forerunner of a continued advance, and there was a flurry of active buying that lasted right up to last week-end. The current week, however, found prices weaker, and demand again has slumped. Hosiery mills, which were in the market for sizeable quantities of yarn for a few days, now have virtually stopped buying; production of hosiery will be light next month when mills have their normal summer shutdowns. Throwsters are encouraged by the brief activity of last week, but they anticipated the current lull, and do not look for any consistent improvement until the latter part of summer.

Quiet pervails throughout the spun silk market. Mills have cut their output and are patiently waiting their usual pick-up in August. Woolen and worsted mills place small orders here and there, and some silk weavers also are covering for summer needs; but all contracts are small and for spot shipment.

◆Raw Silk Weak After Brief Rally

AFTER some sharp variations, raw silk shows signs of settling back in its position of ten days ago. The latter part of last week was marked by spirited buying, provoked by reports that Japan had taken definite action to assimilate the surplus stocks in domestic manufacture there. The reports were taken seriously in the New York market for a short time, and American manufacturers began to cover actively, anticipating a steady rise in prices. The rumors were not confirmed, however, and Monday found prices decidedly softer.

Consumer interest waned immediately, and the current week is proving quiet. Importers do not look for any sensational gains, though further fluctuations are possible. Sincere buying interest is practically negligible; price variations attract bargain and opportunist coverage, but neither weavers nor knitters are disposed to buy more than immediately needed. Broadsilk mills place small orders here and there. Hosiery firms have slowed up buying also, in anticipation of mid-summer shut-downs.

See Active July

Prospects point to a fair raw silk movement in July, however, as some manufacturers have begun production of fall silk fabrics, and others are expected to follow suit soon.

Importers end their first half of 1931 satisfied with volume, but doubtful as regards net. Profit margin has been meager, and few will end the January-June period with substantial revenue. Importers regard the outlook as encouraging, particularly at the broadsilk end. Information from customers indicates that in part of the fabric trade, at least, the carry-over stock will be well below last year. One importer said his customer mills claim to have ended the present season with stocks 30% below 1930.

◆Rayon in Better Financial Position

SEASONAL decline in rayon yarn demand promises to be less than usual. Orders have tapered off, during recent weeks, and producers look for a further drop, lasting until early August, but comparison of percentages indicates that the recession at this time last year, was decidedly more pronounced. Consuming industries regard the fall season with confidence, and while many large mills will close for their usual midsummer break in July, some of these concerns are already placing yarn orders for delivery when the mills reopen. Current buying centers on spot shipment, though there is a fair quantity ot August, and even some September business being placed.

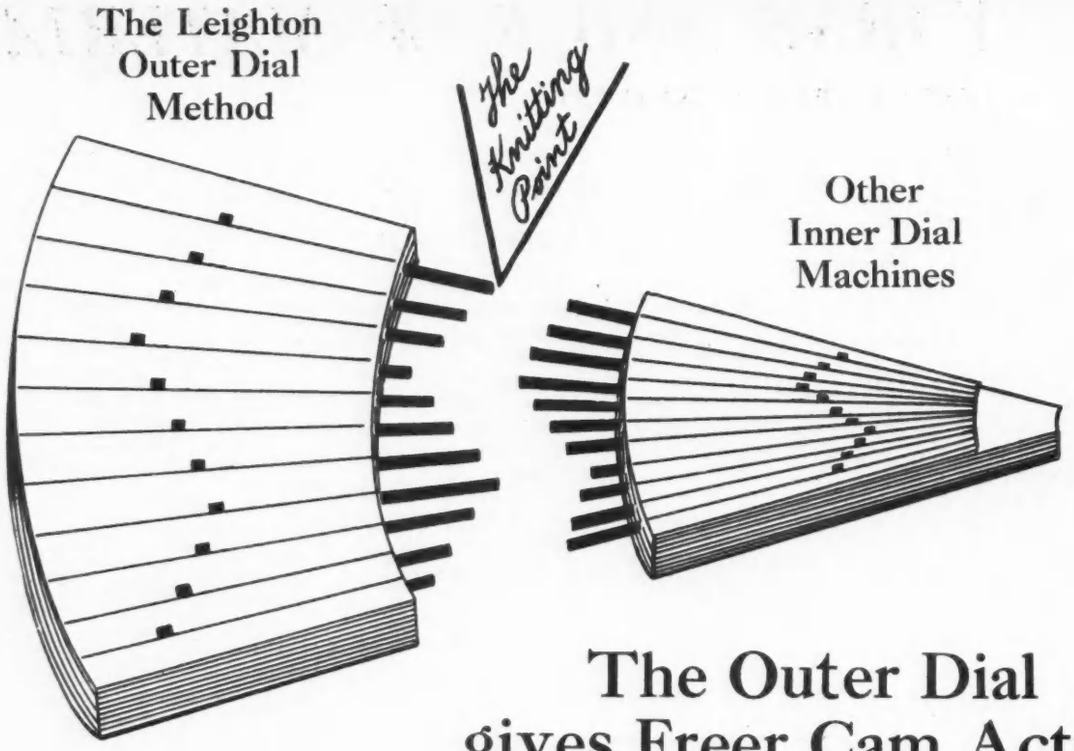
Rayon producers' stocks are low, and some firms say the minimum has been reached. Production stands between 90 and 100% of capacity at present. It is unlikely that stocks will be permitted to fall below present levels; leading companies plan to continue active output through the lull period, irrespective of demand. In event August showed no pick-up, however, production probably would slow down.

Treasurers Optimistic

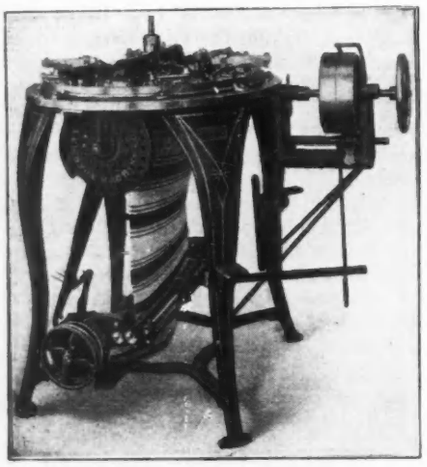
The treasurers of the producing companies now are more optimistic regarding the net profit. The surprising gain in volume has so reduced the overhead per pound that rayon is in a considerably better position than two months ago. Even now, however, it is a question whether producers are making any commensurate profit. The picture is more satisfactory as regards the fall outlook. Growing consumer confidence, steady prices, and a low surplus yarn stock, all unite in offering promise for the coming season.

There is a shortage of 150/24 bright luster yarn, and manufacturers find themselves obliged to shop around for early shipment. One company asks three weeks, another is sold out for two months, and the remainder discourage

(*Continued on page 67*)



The Outer Dial gives Freer Cam Action and greater Versatility



Illustrating *outer dial* three or four color stripe Machine for Rib Jersey. Adaptable to fine or coarse gauge work. Also machines for Pattern Wheel Designs, one, two or three needle rack. Special Jacquard Machines—simple in operation, variety of color blends, fast production. Machines for automatically knitting 2 and 2 rib bottoms and cuffs.

THE needle dial is *outside* the knitting point—and from this Leighton feature comes advantages which mark Leighton Machines as built to order for these times of rapidly changing styles.

Note how the outer dial in Leighton Machines allows more room for cam action. Instead of a small dial, with the cam cramped into a limited space, you have a big dial surface, with ample thickness between needle slots, and with much more room for free, easy action of all cam motions. Also, you can get longer needle draw with the bigger outer dial.

More room for cam action means smoother motion, and smoother, faster knitting. Cams need not be so steep, and there is therefore less wear on the cams and less wear on the needle butts. Also, it means easier design of cam motions—quicker production of new style fabrics. The big outer dial gives Leighton Machines versatility—and keeps your production right at the heels of style changes. Which keeps Leighton Machines busy, and profitable.

Replace your frozen equipment with Leighton — and produce the same volume with fewer machines and less labor. A representative will gladly call and tell you about the several types of *outer dial* Leighton Machines for all classes of goods.

LEIGHTON MACHINE CO.

MANCHESTER, N. H.

Established 1873 **Incorporated 1894**

FABRIC MARKET REPORTS

TEXTILE WORLD ANALYST

◆Deliveries Worry Men's Wear Buyers

MANY cannot understand why the loom statistics for the country do not show in a more impressive manner the improvement we have been discussing in heavyweight men's wear since the season began. Looms show only slightly more than 50% of full time capacity according to the latest figures compiled by the Department of Commerce. It should be pointed out in this connection, however, that since the men's wear improvement began the loom activity figures have increased slightly.

That the loom activity percentage has not increased to a greater degree confirms what has been emphasized in these columns; namely, that the business has not been widely scattered. It has on the contrary been confined to a comparatively small number of mills and sellers. Those who have both wanted fabrics and satisfactory prices are turning business away. Those who do not, are lucky if they are running half time.

In recent weeks the picture has changed. Houses which cannot make deliveries on popular fabrics for three months may lose some duplicates to others, and manufacturers who were not quite in the active picture at the beginning of the season find things coming their way now. There is a limit to this. The trend will not continue until all mills are equally busy. Some have not the goods, styles and prices.

Buyers are wondering if this tightness so far as deliveries are concerned will change in the next few months—what the situation will be when lightweights are opened, which will no doubt be late in September; will prompter deliveries be feasible?

The answer is to be found mainly in what type fabrics will be wanted. Should the trend be still toward staples then the delivery situation will become easier. If the trend toward fancies, which some profess to see already, goes forward, then the tightness could easily become more apparent.

There is nothing actually upon which to base as a prediction at this time; no one knows whether plains are going to stay in one more season or whether fancies will be the feature in lightweights. At present men's wear firms which "are in the swim" are unable to do much in the way of deliveries for three months ahead. If plains stay in favor this will become easier by the time lightweights are shown and gradually will work back to a six weeks' basis.

Fashion displays held by leading dress goods manufacturers show that fall fabrics in these and coating lines are making a strong effort to keep abreast with the large demand for men's fabrics. Extremely lightweight worsteds, printed woolens, boucles, which are in the limelight for fall wear, and suede-like woolens are expected to be sales leaders when volume buying begins.

There is no question that a satisfactory volume will be done in women's fabrics. The questions are: "How short will the season be and how rushed will mills be to make deliveries wanted; how will spinners meet the overnight demand?"

◆Cotton Goods Prices Show More Firmness

ALTHOUGH trading has improved somewhat in the last 10 days, volume being larger than at any time this month, and larger than any similar period since March with the Hunter firm, June will no doubt be a poor month for cotton goods sellers. Volume will be the smallest of the year, in most cases, although these are exceptions. Houses and manufacturers that are willing to meet current market prices with goods for delivery during the balance of this year, are doing well.

Majority of mills and selling agents refuse to consider offers for delivery later than September and there are many who will not accept business for that delivery, confining acceptances to nearby shipments. Majority of sellers reports trading as slightly improved in the last week but still small in volume.

The Hunter company in its market letter states it sold for the week ending June 12 in excess of production. "The volume this week exceeds that of any week since the first week in March, actually 50% in excess of production. The greater part of the business was done on print cloths and sheetings and fine and fancy goods."

There is a better feeling in Worth Street this week. The most optimistic that has been noted for more than a month. Actual business does not warrant this but the manner in which the market has acted in the last two weeks does. Outside influences have been decidedly unfavorable, but print cloths have been holding well in price in the face of these. There has been a soft trend, but no general price slashing has been seen.

Better Feeling Apparent

Sellers assert that while firmness has been lacking the last week or 10 days there has been more of a resistance to further declines that was apparent in the previous two weeks. The psychology of National Cotton Week is not to be underestimated. The effect upon sellers has been of the first importance, and this, taken in consideration with the increase in actual business done by retailers the country over, makes this new feeling understandable.

Little of the direct effect of larger retail sales of cotton goods has been felt by sellers in Worth Street. Bulk of the improvement in trading has been in constructions that are going into hands of other manufacturers. For example best business in the last two weeks has been with shade cloth manufacturers. The effects of National Cotton Week and accumulated business bound to come from it have yet to be felt by manufacturers. This will be considerable in the near future.

Retailers' stocks of cotton goods are reported to be small. The fact that prices are on an exceptionally low basis, not duplicated for a decade and a half, and that stocks in primary hands are very small, are the reasons why Worth Street looks ahead with a confident bearing.

◆Broadsilk Weakness Slows Up Sales

PRICE-CUTTING which was resorted to by the broadsilk industry, to stimulate business, seems to be having the opposite effect. Except for pick-ups of bargain clearance lots, there is no real activity in the market at present. Cutters-up are afraid to buy at prevailing rates, thinking that prices may slump further giving an advantage to competitors who deferred their purchases. This plus the seasonal lull, makes it exceedingly difficult for mills to move their fabric lines, unless at a sacrifice.

Current demand emphasizes transparent velvets, and to a lesser degree flat crepe plains. Several leading houses report a fair call for pastel crepes, at profitable prices. Shantungs continue to clear, but there is still some distress merchandise to be had.

Any tendency toward price stability would help fall business. At present buying is mostly spot, though the week has brought in smattering of fall orders. Cutters look to the fall with much hesitancy; not, as regards consumer buying tone, which they believe will be decidedly better, but more with respect to what lines will be favored. Fabric manufacturers themselves are equally hesitant, and the continued postponement of fall fabric openings tends to aggravate this situation. However, certain fall trends are beginning to receive attention; among the lines expected to prove important are cantons and tweed effect numbers. It is reported the color trend in flat crepes for fall will lean strongly to plains, as a reaction to the trading-down which marked the entire print line last spring.

KNIT GOODS MARKETS

TEXTILE WORLD ANALYST

◆Swimsuit Reorders Keep Mills Busy

BATHING-SUIT demand continues at high pressure, and knitters look for business to maintain its present pace at least until Independence Day. Distributors have very little stock on hand, and there is a steady influx of reorders, with good-sized premiums being paid for quick shipment. Practically all current reorders are being placed at the new advanced prices. All-in-all, the swimsuit season has been very satisfactory, with plenty of business at a healthy profit. This industry has fared as well as any, and better than most textile divisions, this season.

Summer Sweaters Active

Summer sweaters enjoy good call, and there is a trend toward better grades. Medium-priced worsteds sell beyond present mill capacity, and producers are asking two to four weeks for delivery. Sleeveless sweaters also move steadily, though not so well as last month. A feature of the week was the improved call for heavyweight sweaters for fall delivery. Numerous big buying chains placed business this week, ordering a varied range of the fall staples and stressing no particular color or model. Mill stocks of winter sweaters are light and there is expectation of a shortage in late summer, if demand is anything like normal.

The heavyweight sweater season is perhaps the most backward this division has known. Spring and early summer response was so discouraging that mills cut their production drastically. Stocks now in hand are adequate for the present buying, but agents say that only a small part of the normal seasonal business has been placed. One agent commented that the mills he represented could produce no more than one-sixth of the supply they normally have on hand in August even if they went into capacity operation very soon. Polo shirts show little activity; there is moderate interest in rayons, but cotton shirts are backward.

◆Low-Priced Mesh Hosiery Very Active

HOSIERY manufacturers who saw their opportunity and jumped into quick production of low-priced seamless mesh stockings for women, are now enjoying remarkably good business. Demand for seamless mesh, especially the numbers retailing at 69 to 79c., is well in excess of supply, and several outstanding mills are sold up through July on these lines. The call is mainly for large designs, and these numbers are popular for sports wear. Mill agents report that in many instances the call for mesh was larger than the call for full-fashioned staple numbers. Full-fashioned itself moves unevenly, with distress merchandise less evident than last week, but prices still uncertain.

Quiet Time Ahead

The market looks for a quiet eight weeks from now on; mesh hosiery promises to be an exception to this, but there is some doubt whether popular-priced mesh lines will last through August; mills specializing in these nets regard it as a temporary market, and are taking full advantage of current demand, but will probably begin to curtail output when orders show the first sign of recession.

Fall numbers, notably children's ribbed hosiery, women's rayon-and-wool, and men's fancy wool half-hose, show increasing activity, and some firms have considerable advance business already booked. Spot call for half-hose is less satisfactory; there is plenty of volume to be had, but prices are weak and allow little true profit. Rayon mixtures are in good call; clocked half-hose in mixed color effects show a gain. The price weakness is somewhat of a puzzle, as the quantity of distress goods available seems to have declined.

◆Fall Underwear Has Belated Start

FALL underwear, like fall sweaters, is showing a belated activity, and carrying the parallel further, the stocks of winterweight underwear on hand in mills are very light. Demand has not been such as to denote a hectic season, and for that reason production is being curbed; however, any sharp upcurve in buying would make it difficult for mills to meet demand.

The call is chiefly for union suits. Agents look for steady buying from now on, and they expect a good though late season. Prices have held firm since the cut.

Good Demand for Bals

Balbriggans move steadily, and the agents look for buying to continue through August. Certain firms find difficulty in meeting demand, and are asking time for deliveries. All the lightweights are in good demand, and market tone is healthy. The sporadic reports of price weakness do not seem to reflect general sentiment, as numerous firms are sold ahead and a few claim that they are getting premiums for quick shipment. The call is largely for low-priced lines; fancy running pants of the popular-price range are outstanding in cottons.

▸American Bathing Suits Popular in Argentina

Argentina is now the second largest purchaser of American-made bathing suits, shipments to that country having grown steadily from only a little over $2,000 worth in 1923 to $106,000 worth in 1930, according to advices received in the Department of Commerce from Assistant Trade Commissioner Thomas C. Ballagh who is located at Buenos Aires.

Shipment of American bathing suits into Argentina has materially aided in popularizing swimming in that country. Swimming pools and municipal bathing beaches have been constructed along the Rio de la Plata and other rivers. Domestic manufacturers are said to be using American bathing suits as models for goods of this type produced locally; thus far, however, they have been unable to manufacture products equal in quality to the article imported from the United States.

▸Full-Fashioned Mills May Move to South

Reports that Philadelphia full-fashioned hosiery manufacturers are seriously considering moving to the South, in the hope of cutting wages 40%, lend interest to the general meeting of the Full-Fashioned Hosiery Manufacturers of America, scheduled to be held next Thursday at the Manufacturers' Club, Philadelphia. Plans for the meeting were announced by Samuel F. Rubin, president of the mill owners' organization, following a meeting last Tuesday in Philadelphia.

Manufacturers at that gathering expressed themselves as "disgusted" with the Philadelphia labor situation, finding it difficult to make profit at prevailing union wage rates; they said they had received attractive offers from southern communities.

▸Berkshire Men Take Engineering Course

The June class of the Pennsylvania State College, State College, Pa., includes nine men on the Berkshire Knitting Mills payroll. They completed courses in the extension engineering school, covering three years. Twelve other Berkshire men were on the list completing the courses of the first and second years.

The nine graduates who held banquet here last week in Reading are George R. Armitage, George B. Bach, Edwin G. Bond, Louis Keener, Rudolph Letsche, A. K. Neufeld, Chester J. Oberc, Charles F. Schaeffer and Joseph Swoboda.

TEXTILE FINANCIAL NEWS

TEXTILE WORLD ANALYST

◆Textile Shares Dull as Are Other Lines

TEXTILE securities, like the general run of industrials, are passing through a period of quiet. The buying public appears indifferent and forced liquidation gives evidence of having run its course for the time being at least. Last Tuesday the total transactions of the New York Stock Exchange touched lowest level recorded for three years which is an index of buyers' indifference.

Brantford Cordage Report

The Brantford (Ontario) Cordage Co., in its recent annual report announced that current liabilities totaled only $41,208, which makes the ratio of current assets to current liabilities at a little better than 58 to 1. Receivables totaled $1,164,809, inventories at cost not exceeding market value, at $863,801, and the total of current assets was $2,400,000. On the basis of the number of shares outstanding as at Aug. 3, 1930, the last report available, the annual dividend requirement is $183,553. At that date the company showed cash at $349,921. The $850,000 of second preferred stock and the 80,000 shares of common stock of this company are held by the president of the company and his associate.

Canadian Converters Profit

Canadian Converters, Ltd., Toronto, in its annual report for the year ended on April 30, just been made public, shows a reduction in profits, a fact which applies at present to most industries. Profits for the year, including income from investments, totaled $56,291, against $104,788 in the preceding year. Deduction for depreciation, taxes, etc., left a net profit of $44,791, which was less than dividend requirements by $41,884. During the year the dividend rate was reduced by 2% to 5%. Working capital, however, has been kept at $702,727.

Real Silk Dividends Passed

Directors of the Real Silk Hosiery Mills, Inc., Indianapolis, Ind., voted to omit the quarterly dividend of $1.75 on the preferred stock and to rescind the quarterly stock dividends of 2½% each in common stock on the common stock previously declared payable July 1, Oct. 1 and Jan. 1, 1932.

Ask Change in Valuation

Dwight Mfg. Co., of Somersworth, N. H., has written to the Mayor and Board of Assessors of Chicopee, Mass., urging that the assessed valuation of its Chicopee mill property be readjusted on a basis of current resale value and stating that if this is done it will improve the prospects for selling this property to a large manufacturing concern employing 1,000 persons, which would use one-third of the floor space for its own operations. Conference on the subject will be held by city officials and Dwight representatives.

West Point Dividend Reduced

West Point (Ga.) Mfg. Co. declared a quarterly dividend of $1 per share, payable Ju.y 1 to stock of record June 15. This declaration represents a reduction from a $6 to a $4 annual basis. In 1930 payments, including extras, totaled $9 per share.

Financial Brevities

The American Felt Co. has declared regularly quarterly dividend on the preferred stock of $1.50 per share payable July 1 to stock of record June 19.

Davenport Hosiery Co. has declared regular quarter dividends of $1.75 on the preferred and 50c. on the common, both payable July 1 to stock of record June 20.

▶Fall River Mill Stocks

(G. M. Haffards & Co., Fall River)

	Bid	Asked
Algonquin Printing Co	270	..
Barnard Mfg. Co	7	..
Berkshire (com.)	5	8
Berkshire (pfd.)	23	..
Bourne Mills	14	..
Border City Mfg. Co	..	6
Charlton Mills	..	48
Cornell Mills	2	..
Davis Mills	..	..
Davol Mills	2	6
Flint Mills	..	..
General Cotton	..	2
King Philip Mills	5	..
Laurel Lake Mills (com.)	..	5
Laurel Lake Mills (pfd.)	..	..
Luther Mfg. Co	..	85
Merchants Mfg. Co	..	..
Narragansett Mills	1	..
Pepperell Mfg	63	65
Pilgrim Mills	29	..
Richard Borden Mfg. Co	1	3
Sagamore Mfg. Co	..	52
Shove Mills	..	5
Stafford Mills	..	1
Stevens Mfg. Co	25	30
Union Cotton Mfg. Co	3	..
Wemteace Mills	..	1

▶Textiles on N. Y. Exchanges

The following shows the movements of the leading textile stocks listed on the New York Stock Exchange and Curb for the week ended June 16

	High	Low	Last Sale	Net Change
Adams Millis	23¼	23	23	—
American Woolen	7	6¼	6¼	— ¾
American Woolen, pfd	26½	26	26½	— ½
Cannon Mills	20⅜	20⅛	20⅛	+ ⅛
Century Ribbon	4⅜	4⅛	4⅜	+ ⅛
Collins & Aikman	13⅜	12¼	13¼	+1¼
Consolidated Textile	⅜	⅜	⅜	—
Durham Hosiery, pfd	21	21	21	—
Gotham Hosiery	10⅜	10⅛	10⅜	—
Industrial Rayon	28⅜	26¾	27¼	+ ⅜
Kayser, Julius	11⅛	11	11⅛	+ ⅛
Kendall, pfd	40¼	40	40	+ ¼
Mallinson	2	1⅞	1⅞	— ⅛
Mohawk Carpet	12½	12⅜	12⅜	+ ⅛
Munsingwear	17	16½	17	— ⅜
Pacific Mills	17⅛	17⅛	17⅛	—
*Pepperell	60½	60½	60½	—2½
Real Silk Hosiery	7⅜	5	7⅜	—2¼
*Tubize Chat B	5¼	5¼	5¼	— ¼
United Piece Dyeworks	23	23	23	— ⅛

*Listed on Curb.

▶Southern Mill Stocks

(R. S. Dickson & Co., Charlotte, N. C.)

	Bid	Asked
Acme Spinning Co	53	65
American Yarn & Processing Co	45	54
Chadwick-Hoskins Co. (Par. $25)	5½	9
Chadwick-Hoskins Co., 8%, pfd	78	86
Crescent Spinning Co	44	50
Durham Hosiery, 6%, pfd	17	23
Erwin Cotton Mills Co., 6%, pfd	87	92
Flint Mfg. Co	..	56
Flint Mfg. Co., 7%, pfd	85	92
Hanes, P. H. Knitting Co	7	10
Hanes, P. H. Knitting Co., 7%, pfd	87	95
Linford Mills	50	62
Perfection Spinning Co	52	65
Roanoke Mills, 1st. pfd. 7½%	44	55
Rosemary Mfg. Co., pfd., 7½%	75	82
Stowe Spinning Co	45	55
Ware Shoals Mfg. Co	..	115
Ware Shoals Mfg. Co., 7%, pfd	78	91
Winget Yarn Mills Co	..	42
Wiscasset Mills Co	125	13

(A. M. Law & Co., Spartanburg, S. C.)

Avondale Mills, Ala	525	650
Bibb Mfg. Co	85	93
Clifton Mfg. Co	80	85
D. E. Converse Co	..	75
Dunean Mills	70	90
Dunean Mills, pfd	94	98
Gossett Mills	..	35
Hunter Mfg. & Com. Co., pfd	75	80
Judson Mills, A pfd	83	86
Judson Mills, B pfd	79	83
Monarch Mills	70	80
Newberry Cotton Mills	80	85
Orr Cotton Mills	35	45
Pacolet Mfg. Co	..	70
Piedmont Mfg. Co	..	80
Riverside & Dan River Mills(Par $25)	8	10
Riverside & Dan River Mills, 6% pfd.	69	73
Southern Bleachery & Print Wks.,pfd	40	50
Spartan Mills	95	105
Union-Buffalo Mills, 1st pfd	..	60
Victor-Monaghan Co	..	41

▶New England Textile Stocks

Quotations at "Public Sale" are based on last sales at Boston Public Auctions and Boston Stock Exchange. Bid and Asked prices are latest quotations of dealers.

	Sale	Bid	Asked
Am. Mfg. Co., pfd	52	42	46
Amoskeag	8½	...	...
Arlington	18½	19	21
Associated Textile	36½	34	37
Bates	60	48	...
Berkshire Associates, com	12½	5½	6½
Berkshire Associates, pfd	40½	29	34
Bigelow-Sanford, com	20½	...	...
Boott Mills	120½	70	...
Edwards	80½	58	63
Esmond, pfd	98	95	99
Farr Alpaca	41	32	35
Hamilton Woolen	40	33	38
Hill	9	9	12
Indian Orchard	10	10	15
Ludlow	105	103	...
Merrimack, com	35	15	...
Nashua, com	7½	5	7
Nashua, pfd	29	25	30
Naumkeag	70	...	73
Newmarket	16½	13	16
Otis	45	42	46
Pacific	17½	...	...
Pepperell	60½	60	63
Plymouth Cordage	58½	55	58
York	8½	7	...

▶Rayon Market Report

(Continued from page 63)

orders that put any stress on time of delivery. This yarn has jumped to major importance because of the exceptional interest in rayon linings. It is being used as filling with cotton warp.

Although demand is light in the waste market, the stocks available are even lighter, and as a result prices hold steady. Several leading waste dealers are selling through to September on open waste, and are unable to make deliveries prior to August on the best grades.

QUOTATIONS

at close of business, June 17, 1931
Prices cover average qualities unless otherwise stated

Cotton Goods

	June 17	June 10	June 18, 1930
PRINT CLOTHS			
27 -in., 64x60, 7.60	3¼c.	3¾c.	4–4¼c.
38½-in., 64x60, 5.35	4¼c.	4⅜–4½c.	5½–5⅝c.
39 -in., 68x72, 4.75	5¼c.	5¼c.	6¼–6⅜c.
39 -in., 72x76, 4.25	6c.	6c.	7¼c.
39 -in., 80x80, 4.00	6¼c.	6¼c.	8¼c.
BROWN SHEETINGS			
36-in., 56x60, 4.00	5¼c.	5¼c.	7½–7¾c.
36-in., 48x48, 3.00	5½–5⅝c.	5⅝c.	8¼–8⅜c.
37-in., 48x48, 4.00	4½–4⅝c.	4⅝c.	6½–6¾c.
PAJAMA CHECKS			
36½-in., 72x80, 4.70	5⅜c.	5⅜c.	6¾–6¾c.
36½-in., 64x60, 5.75	4⅜c.	4⅜c.	5½–5⅝c.
MISCELLANEOUS			
Drills, 37-in., 3 yd.	6 c.	6 c.	8⅛c.
Denims, 2.20	11 c.	12 c.	15 c.
Tickings, 8 oz.	14 c.	15½c.	18–19½c.
Standard prints	7¼c.	7¼c.	8 c.
Eastern staple ginghams, 27-in.	8 c.	8 c.	10 c.

Cotton Waste

Peeler comber	6¾– 7¼
Peeler strips	6½– 7
Sak. comber	7¼– 7¾
Choice willowed fly	4 – 5
Choice willowed picker	3 – 4
Sak. strips	10½–11
Linters (mill run)	2½– 3½
White spooler (single)	5¾– 6

Cotton Yarn

CARDED (Average Quality)
Double Carded 2c.—4c. higher according to quality

SINGLE SKEINS OR TUBES (Warp Twist)

4s to 8s	$0.16 – .16½	22c	$0.20 – .20½
10s	.16½ – .17	24s	.21 – .21½
12s	.17 – .17½	26s	.22 – .22½
16s	.17½ – .18	30s	– .23
20s	.18 – .18½	40s ex.qual.	.34 – .35

TWO-PLY SKEINS AND TUBES

8s-2	$0.16½	26s-2	$0.22 – .22½
10s-2	.16½ – .17	30s-2	.23 – .23½
12s-2	.17 – .17½	36s-2	– .30
14s-2	– .17½	40s-2	.31 – .32
16s-2	– .18	40s-hi.brk.	– .35
20s-2	.18 – .18½	50s-2	– .39
24s-2	– .21	60s-2	– .46

SINGLE WARPS

10s	$0.16 – .16½	24s	$0.21
12s	.16½ – .17	26s	– .22
14s	.17 – .17½	30s	– .24
16s	.17½ – .18	40s ex.qual.	– .35
20s	.18 – .18½		

TWO-PLY WARPS

8s-2	$0.17	24s-2	$0.21½ – .22
10s-2	.17 – .17½	26s-2	– .22½
12s-2	– .17½	30s-2	.23 – .24
14s-2	– .18	40s-2 ordin.	.31½ – .32
16s-2	– .18½	50s-2	– .39
20s-2	.19 – .19½	60s-2	– .46

8s-3 and 4-ply skeins and tubes: tinged, 15½–16 white, 16½-17; waste, 15-15½

HOSIERY CONES (Frame Spun)

8s	$0.16	22s	$0.19½ – .20
10s	.16 – .16½	24s	.20½ – .21
12s	.16½ – .17	26s	.21½ – .22
14s	.17 – .17½	30s tying	.22½ – .23
16s	.17½ – .18	30s reg.	.24 – .24½
18s	.18 – .18½	30s ex.qual.	– .26
20s	.18½ – .19	40s	.32 – .33

COMBED PEELER (Average Quality)

TWO-PLY—(Knitting Twist) Cones

20s-2	$0.29 – .30	60s-2	$0.47 – .48
30s-2	.33 – .34	70s-2	.58 – .59
36s-2	.35 – .36	80s-2	.69 – .70
40s-2	.37 – .38	90s-2	.85 – .87
50s-2	.43 – .44	100s-2	1.04 – 1.06

WARPS, SKEINS AND CONES

TWO-PLY—(Warp Twist)

20s-2	$0.30 – .31	60s-2	.48 – .49
30s-2	.34 – .35	70s-2	.58 – .59
36s-2	.36 – .37	80s-2	.70 – .72
40s-2	.38 – .39	90s-2	.85 – .87
50s-2	.43 – .44	100s-2	1.05 – 1.07

SINGLES

12s	$0.25 – .25½	30s	$0.33½ – .34
14s	.25½ – .26	38s	36½ – .37
16s	.26 – .26½	40s	.38
18s	.26½ – .27	50s	.43
20s	.27½ – .28	60s	.47 – .48
24s	.30 – .30½	70s	.59 – .60
28s	.32½ – .33	80s	.70 – .71

MERCERIZED CONES—(Combed, Ungassed)

26s-2	$0.47 – .48	90s-2	$1.25 – 1.27
30s-2	.49 – .50	100s-2	1.55 – 1.57
36s-2	.52 – .53	120s-2	1.95 – 1.97
40s-2	.55 – .56	30s	.60
45s-2	.57 – .58	40s	.65
50s-2	.59 – .60	50s	.72
60s-2	.67 – .68	60s	.80
70s-2	.79 – .80	70s	.92
80s-2	.90 – .91	80s	1.10–1.14

Cotton Prices and Statistics

FLUCTUATIONS OF FUTURES

	Closed June 11	For Week—High	For Week—Low	Closed June 17	Net Chge.
June	8.52	8.78	8.49	8.71	+.19
July	8.58	8.84	8.36	8.74	+.16
August	8.72	8.93	8.67	8.87	+.15
September	8.86	8.99	8.83	8.99	+.13
October	8.95	9.28	8.74	9.12	+.17
November	9.07	9.31	9.04	9.24	+.17
December	9.19	9.46	8.97	9.36	+.17
January	9.30	9.56	9.08	9.47	+.17
February	9.38	9.64	9.37	9.56	+.18
March	9.47	9.75	9.26	9.65	+.18
April	9.57	9.83	9.57	9.76	+.19
May	9.67	9.96	9.47	9.88	+.21

SPOT FLUCTUATIONS FOR WEEK (Middling)

	New York	New Orleans	Liverpool
Thursday, June 11	8.65	8.43	4.65
Friday, June 12	8.70	8.43	4.75
Saturday, June 13	8.65	8.43	4.78
Monday, June 15	8.65	8.43	4.73
Tuesday, June 16	8.95	8.68	4.74
Wednesday, June 17	8.90	8.74	4.85

FOREIGN COTTONS

Egyptian Cotton

Alexandria Exchange, June 16		Change
July Sak	13.29	+0.27
August uppers	9.80	+0.25

June-July Shipment c. i. f. Boston (Tariff not included)

Fully good fair Sak	16.40
Fully good fair to good Uppers	12.25

(By Anderson, Clayton & Co.)

Foreign cottons	F. O. B. New York, Cents
Peruvian Tanguis Strict Middling	18½
Peruvian Pima No. 1	18¼
Peruvian Moderate Rough	14
Peruvian Full Rough	18*
China Tientsin No. 1	10½
India Rough	7 to 10
India Smooth	7 to 10

*Nominal. (By Bruns-Nordeman Co.)

BASIS MIDDLING

	Saturday, June 13	Saturday, June 6
10 markets average	8.13	7.85
Memphis	7.75	7.50

PREMIUM STAPLES

First Sales from Factors Tables at Memphis

Grade Strict Middling	Basis Firm
1⅛-in	10.70—10.95c.
1 3/16-in	11.90—12.15c.
1¼-in	16.35—16.60c.

CURRENT SALES

	For Week	Prev. Week	Week Before
Memphis total	5,980	4,616	3,149
F.o.b. included in total	5,880	4,366	2,743
10 markets	14,230	23,742	22,307

MEMPHIS RECEIPTS, SHIPMENTS, ETC.

	For Week	Last Year	Year Before
Net receipts	505	1,430	1,712
Gross receipts	6,773	8,951	8,079
Total since Aug. 1, net	655,893	931,692	856,154
Shipments	17,353	19,529	18,455
Total since Aug. 1	1,325,960	1,792,964	1,772,335
Total stock	174,807	206,320	100,317
Decrease for week	11,580	10,578	10,376
Unsold stock in hands of Memphis factors	14,645	31,101	.....
Increase for week	15	*3,063	.....

*Decrease

AVERAGE PRICE JUNE-JULY SHIPMENT HARD WESTERN COTTON

F.o.b. New England

	Middling	St. Middling
1 1/16-in	11¼–11½c.	11½–12 c.
1⅛-in	11¾–12 c.	12¼–12⅝c.
1 3/16-in	14 –14½c.	14½–15 c.
1¼-in	19½–20½c.	21½–22½c.

SPOT FLUCTUATIONS AND STOCKS

Markets	Middling—June 10	Middling—June 17	Sales	Stocks—This Week	Stocks—Last Year
Galveston	8.50	8.85	1,275	482,594	211,029
New Orleans	8.17	8.74	6,490	653,595	431,497
Mobile	7.60	8.05	347	248,204	12,657
Savannah	7.96	8.40	758	349,564	81,581
Norfolk	8.19	8.56	563	64,229	52,669
New York	8.45	8.90	3,250	228,077	224,945
Augusta	7.88	8.38	228	65,015	58,325
Memphis	7.55	7.95	4,004	166,802	203,810
St. Louis	7.55	8.30	....	6,082	8,577
Houston	8.35	8.75	1,529	860,418	612,951
Dallas	7.60	8.05	716	7,114	13,265

DIFFERENCES ON AND OFF MIDDLING

WHITE GRADES

	Dallas	Memphis	Montgomery	Augusta	Average
M. F	.75†	1.00†	.85†	.75†	0.88†
S. G. M	.60†	.75†	.75†	.63†	.70†
G. M	.50†	.50†	.60†	.50†	.52†
S. M	.35†	.25†	.35†	.25†	.31†
S. L. M	.50*	.50*	.50*	.50*	.50*
L. M	1.15*	1.25*	1.25*	1.25*	1.24*
S. G. O.**	1.80*	1.80*	2.25*	1.75*	1.96*
G. O	2.45*	2.05*	3.00*	2.25*	2.60*
YELLOW TINGED					
G. M	.40*	.75*	.50*	.50*	0.54*
S. M	.65*	1.00*	1.00*	.75*	0.89*
M.**	1.40*	1.25*	1.50*	1.25*	1.42*
S. L. M	1.90*	1.75*	2.15*	2.00*	1.99*
L. M.**	2.65*	2.00*	2.75*	2.75*	2.67*
YELLOW STAINED					
G. M	1.50*	1.50*	1.5 °	1.25*	1.45
S. M.**	2.00*	2.00*	2.00*	2.00*	2.00
M.**	2.75*	2.50*	2.75*	2.75*	2.70
BLUE STAINED					
G M.**	1.50*	1.50*	1.50*	1.50*	1 50*
S. M.**	2.00*	1.75*	2.00*	2.00*	1.98*
M.**	2.75*	2.25*	2.75*	2.75*	2.68*

**Grades not deliverable on contract. †On Middling *Off Middling.

Wool

OHIO, PENNSYLVANIA AND WEST VIRGINIA (IN GREASE)

Fine delne..	$0.24 –$0.25	¾ blood.....	$0.21 –$0.22
Fine clthg ..	.20 – .21	½ blood.....	.20 – .21
¼ blood.....	.23 – .24		

TEXAS AND CALIFORNIA (CLEAN BASIS)

Texas, 12 months	$0.60 –$0.62
California, Northern	.51 – .53

PULLED—EASTERN (CLEAN BASIS)

A-A.	$0.65 –$0.68	B-Super...	$0.47 –$0.52
A-Super....	.53 – .55	C-Super...	.42 – .45

MONTANA, IDAHO AND WYOMING (CLEAN BASIS)

Staple fine	$0.61 –$0.63
Staple ¾ bld.	.55 – .58
Fine and fine medium	.55 – .58
¾ blood	.45 – .48
½ blood	.40 – .42

MOHAIR—DOMESTIC

Best carding	$0.23 –$0.25
Best combing	.31 – .33

MOHAIR FOREIGN (IN BOND)

Turkey fair, average	$0.17 –$0.20
Cape firsts	.18 – .21

FOREIGN CLOTHING AND COMBING (CLEAN BASIS IN BOND)

Australia:	
70s	$0.52 –$0.55
64s	.45 – .48
58s-60s	.41 – .43
(IN GREASE)	
Montevideo:	
58s-60s	$0.19 –$0.20
56s	.18 – .19
50s	.16 – .17
Buenos Aires:	
4s, 40-44s	$0.14 –$0.15
5s, 36-40s	.12 – .13

FOREIGN CARPET (GREASE BASIS IN BOND)

Aleppo washed	$0.22 –$0.24
China: Combing No. 1	.13 – .14
China Filling Fleece	.12 – .14
Szechuen ass't	.12 – .14
Cordova	.14 – .15
Scotch black face	.15 – .17
East India: Kandahar	.17 – .19
Vican'r	.23 – .25
Joria	.23 – .24

Worsted Yarns

ENGLISH SYSTEM WEAVING

2-20s 36s	$0.77½–0.80
2-24s 40s	– .85
2-26s 44s	.87½– .90
2-28s 46s	.92½– .95
2-30s 48s	.95 – .97½
2-32s 50s	.97½–1.00
(Single yarns 5c. less than above)	
2-36s, 58s	$1.22½–1.25
2-40s, 60s	– 1.32½
2-40s, 64s	1.35 –1.37½
2-50s, 66s	1.47½–1.50
2-60s, 70s	1.85 –1.87½

ENGLISH SYSTEM KNITTING

2-20s, 44s in oil	$0.75 –0.77½
2-20s, 48s in oil	– .80
2-20s, 50s in oil	.80 – .82½
2-20s, 56s in oil	.92½– .95
2-20s, 60s in oil	1.10 –1.12½
2-20s, 64s in oil	1.20 –1.25
1-18s, 46s dyed	.95 – .97½
1-18s, 48s dyed	.97½–1.00
1-18s,50s dyed	1.00 –1.02½
(Oil yarns 17½c. less)	
FRENCH SYSTEM	
1-20s, 58s	$1.05 –1.07½
1-20s, 60s	1.10 –1.12½
1-18s, 64s, dyed	1.32½–1.35
1-26s, 64s	1.12½–1.15
1-30s, 60s, Warp	1.20 –1.22½
1-30s, 64s, Warp	1.22½–1.25
2-30s, 64s, Fancy mixes	1.45 –1.47½
2-40s, 64s, Zephyrs	1.35 –1.37½
1-50s, 66s	1.47½–1.52½
2-50s, 66s	1.55 –1.57½
1-60s, 70s	1.85 –1.87½
2-60s, 70s	1.90 –1.95
FRENCH SPUN MERINO WHITE	
1-30s, 50-50-58s on cops	$ .95 –1.00
1-40s, 50-50-60s on cops	1.10 –1.15
1-40s, 50-50-64s on cops	1.12½–1.15
1-40s, 50-50-64s Australian cops	1.20 –1.25

Underwear mixes, 3c., Solid color, 35c. additional.

New York Top Futures

	Close June 10	For the Week—High	Low	Close June 16	Net Change
September	70.10	70.40	69.60	69.60	—0.50
October..	70.20	70.40	69.60	69.60	—0.60
November	70.20	70.40	69.60	69.60	—0.60
December	70.20	70.40	69.60	69.70	—0.50
January..	70.30	70.40	69.70	69.90	—0.40
February.	70.30	70.40	69.70	69.90	—0.40
March....	70.40	70.40	69.70	69.90	—0.50
April.....	70.40	70.50	69.70	69.90	—0.50
May.....	70.40	70.50	69.70	69.90	—0.50

Tops and Noils

TOPS—BOSTON

Fine (64-66s)	$0.82–$0.84
Half-blood (60-62s)	.78– .80
High ¾ blood (58s)	.68– .70
Aver. ¾ blood (56s)	.63– .65
Low ¾ blood	.60– .62
High ½ blood (50s)	.53– .55
46s S. A. and N. Z.	.51– .53
44s S. A. and N. Z.	.50– .52
40s S. A. and N. Z.	.48– .50

TOPS—BRADFORD, ENG. (JUNE 12)

Fine (70s)	25½d	¾ bld. (56s)	15½d
Fine (64s)	23 d	½ bld. (50s)	13 d
¾ bld. (60s)	20½d	Cross-bred (46s)	10½d
¾ bld. (58s)	18 d		

NOILS—BOSTON

Fine	$0.41–$0.43	High ½ bld..	$0.33–$0.35
Half-bld....	.38– .40	Low noils...	.28– .32
Aver. ¾ bld..	.35– .38	Medium colored...	.25– .28
Fine colored.	.33– .35		

Wool Substitutes

WOOL WASTE

Lap, fine white	$0.65 –$0.68
Lap, fine colored	.48 – .52
Hard ends, fine white	.52 – .55
Hard ends, ¾ blood white	.35 – .38
Hard ends, fine colored	.25 – .27
Hard ends, medium colored	.18 – .20
Card, fine white	.23 – .26
Burr, fine Carbonizing	.27 – .30

OLD WOOLEN RAGS (GRADED FOR MFRS.)

Merinos, Coarse Light	$0.05 –$0.05½
Merinos, Fine Dark	.03½– .04
Merinos, Fine Light	.11 – .12
Serges, Blue	.06 – .06½
Serges, Black	.06 – .07
Serges, Red	.08 – .09
Knit, White	.23 – .24
Knit, red	.10½– .11
Knit, Light Hoods	.13 – .14
Worsted, Light	.05 – .05½
Worsted, Blue	.06½– .07
Worsted, Black	.06½– .07

Silk Yarns

THROWN SILK (60 day basis)

	Nominal
Japan organzine, 2 thd. spec. gd. XX. sk. 85%.	$3.70
Japan organzine, 2 thd. sp. crack. sk. 81%.....	3.35
Japan crepe, 3 thd. gd. XX bob. 83%.....	3.50
Japan crepe, 3 thd. sp. crack. bob. 81%.....	3.40
Japan crepe, 4 thd. crack bobbins, 78%.....	3.30
Japan grenadine, 4 thd. sp. grand singles, 87%	4.75
Japan grenadine 3 thd. 90%.....	5.50
Canton crepe, 3 and 4 thd.ns.14/16 on bobbins	2.35
Hosiery tram, 3 thd. Japan 90%.....	4.50
Hosiery tram, 5 thd. Japan, 85%.....	3.45
Hosiery tram, crack XX 78%.....	3.00

SPUN SILK YARNS (Terms: net 30)

40/2.....	$3.35	60/2.....	$3.55
54/2.....	3.50	62/1.....	2.45

Raw Silk

(60 Day Terms. Spot Goods.)

	13/15 White	20/22 White	20/22 Yellow
Super Grand, 86/88%...	$2.90	$2.25	$2.25
Special Grand, 85%.....	2.60	2.20	2.20
Grand XX, 83%.....	2.45	2.15	2.15
Special Crack, 81%.....	2.35	2.10	2.10
Crack XX, 78%.....	2.25	2.05	2.05
Extra Extra, 75%.....	2.20	....	....
Best Extra, 68%.....	2.15	....	....
Canton filature, new style, 14/16.....			$1.50
Canton filature, new style, 20/22.....			1.40
Tussah filature, 8 cocoon.....			1.00

NATIONAL RAW SILK EXCHANGE

	Close June 10	For the Week—High	Low	Close June 16	Net Change
June.....	2.22	2.27	2.19	2.22	.....
July.....	2.20	2.23	2.18	2.20	.....
August...	2.18	2.24	2.17	2.19	+.01
September	2.17	2.22	2.16	2.18	+.01
October..	2.18	2.22	2.17	2.18	.....
November	2.18	2.22	2.17	2.18	.....
December	2.18	2.22	2.17	2.18	.....
January..	2.17	2.22	2.16	2.18	+.01

Total contracts..... 334

Total number of bales—3,340. Total approximate value..... $999,495

Trading unit crack xx 13/15 w te 78%.

Domestic Rayon

VISCOSE PROCESS

Denier	Filament	First	Second
50	14	$2.15	$1.95
75	18–30	1.35	1.25
100	18–40	1.10	1.00
125	36–50	1.00	.90
150	30	.70	.67
150	40	.75	.72
150	60	.85	.82
150	75–90	.85	.82
170	24–27	.75	.72
170	60	.85	.82
200	30	.75	.72
200	35–42	75	.72
300	42–62	.63	.60
450	54–60	.63	.60
600	72–96	.63	.60
900	100–144	.63	.60

Note: So-called "obsolete" yarns, 150/24 and 150/36, still available at 65c.

NITRO-CELLULOSE PROCESS

Denier	First Qual.	Second Qual.	Denier	First Qual.	Second Qual.
75..	$1.35	$1.25	150....	$0.75	$0.72
100....	1.05	.95	175....	.75	.72
125....	.95	85			

CUPRAMMONIUM PROCESS

Denier	Filament	Price	Denier	Filament	Price
15	24	$3.10	65	45	$2.00
25	24	2.85	80	60	1.70
30	24	2.60	100	75	1.35
40	30	2.40	120	90	1.22
52	30	2.20	150	112	1.10
			180	135	.97

ACETATE PROCESS

Denier	Price	Denier	Price
45.....	$2.25 2.75	120.....	$1.90
55.....	2.05–2.55	140.....	1.30
65.....	2.45	150.....	1.40–1.85
75.....	1.80–2.70	200.....	1.55
100.....	1.65–2.45	300.....	1.50

Rayon Waste

Open bleached waste	$0.13–$0.14
Open unbleached waste	.10½
Bleached thread waste (mfs.)	.09
Bleached thread waste (misc.)	.06– .07
Colored thread waste	.04
Colored clips	.04

CONVERTED RAYON WASTE

Bleached tops	$0.30–0.32½
Unbleached tops	.28– .29
Bleached noils	.11
Unbleached noils	.09½
Bleached garnetts	.12
Unbleached garnetts	.13
Colored garnetts	.10– .11

Silk Waste

Kibizzo Kakai Grand XX	$0.50
Kibizzo Kakai Triple Extra	.44
Frison Grand Double	.49½
Pierced Cocoons	.50

▸ Japanese Silk Promotional Campaign Here Postponed

The New York office of the Raw Silk Association of Japan on Wednesday received cable advices from Yokohama confirming reports of the postponement of the Japanese silk promotional campaign, which was tentatively scheduled to be held in the United States next month. Officers of the association said they did not know just when the drive would be undertaken. The campaign committee had deferred the collection of funds among Japanese reelers and other silk producers, which funds were to meet the costs of the drive.

The aim of the campaign, as previously noted in TEXTILE WORLD, was to develop a fuller appreciation of the uses and qualities of silk in the American consuming market.

▸ South Carolina Manufacturers to Meet June 26 and 27

Dr. John L. Davis, lecturer, New York, N. Y., will deliver the banquet address at the annual meeting of the Cotton Manufacturers Association of South Carolina which will be held at Grove Park Inn, Asheville, N. C., June 26 and 27. T. M. Marchant, president of the association, announced that the program has not been completed but that several interesting events are being planned. R. E. Henry and Herbert Lindsay, both of Greenville, S. C., are vice-president and secretary, respectively.

▸ Philadelphia Manufacturers Association Annual Outing

The Fifth Annual Outing of the Philadelphia Textile Manufacturers Association was held Wednesday, June 17, at the Manufacturers' Country Club, Oreland, Pa. A large attendance was on hand. The usual golf match was held, with a large array of prizes awarded to the winners. The affair was concluded by a dinner in the evening. Further details will be given next week.

▸ "Silk Shetland" a New Wool-Like Fabric

(Continued from page 31)

let or buy by the installment plan the looms from the manufacturer for whom they work. The manufacturer provides the materials, supervises the work, finances the workers and disposes of their product. In Kiryu, alone, where Silk Shetland and Silk Polla are made, there are 3,600 such manufacturing unit homes, each with from four to ten looms. The workers are much happier this way than under the factory system; and they take a pride in their work which results their turning out the finest grade of silk fabrics—as they regard themselves as artizans rather than factory hands. For the last several hundred years there has never been a strike or any labor agitation in Kiryu. It is only in the older industries that this system prevails. The rise of immense cotton mills and of other large scale production factories spells the doom of this system —and, also, of much of the finest work created in Japan. In the silk fabric industry, however, there is little prospect of the present system being changed.

Mr. Aoki is now interested in finding a market for Silk Shetland in the United States, and may, in the near future, visit America. He is also considering the possibility of making some sort of manufacturing arrangement in the United States. In the meantime he is busily engaged in directing the affairs of the Owoto Silk Textile Mills (Awoto Kinu Orimono Koba), Kiryu, Gumma-Ken, Japan.

▸ Variety of Degumming Agents Available

(Continued from page 41)

containing solvents, is that they keep in solution any impurities liberated from the silk which ordinarily would produce a scum on the surface of the dyebath.

In selecting a solvent boil-off oil, the dyer must choose one which will not lose its efficiency when being used. It is generally best to adapt the degumming process to fit the solvent, rather than to adapt the solvent to suit the method. Some solvents are volatile at a boiling temperature; and in this case the goods must be soaked in the solution until the stains are loosened before the bath is brought to a boil.

If the solvent is not volatile at a boil, the goods can be entered in the boiling bath, and degumming and removal of the spots carried out at the same time. This latter method offers obvious advantages, and development of high-boiling-point solvents comparable in cost and efficiency with the more volatile solvents would increase its popularity.

▸ Recent Deaths in the Industry

Among the recent deaths of textile executives whose careers will be treated in the obituary column of this paper next are the following: Charles T. Aldrich, treasurer, Aldrich Bros., Moosup, Conn.; M. L. Smith, treasurer and general manager, Hampton Spinning Mills, Clover, S. C.; D. C. Williams, superintendent, Rockfish Mills, Inc., Hope Mills, N .C.; David Helier, of Helier & Long, New York.

▸ Wool Federation to Meet in Switzerland

It is reported that the next conference of the International Wool Federation will be held in Basle, Switzerland, at the end of October instead of at Leipzig as previously planned.

▸ "Production with Profits" Seminar

A plan that will demonstrate how textile and apparel manufacturers may operate profitably under present day conditions will be presented at a "Production with Profits" seminar to be conducted by the Financial Division of the Borsodi Analytical Bureau at the Fifth Avenue Hotel on Monday, June 29, it is announced by Ralph Borsodi, president.

The plan is the result of six years intensive study of the operations of the various branches of the textile industry, according to Mr. Borsodi.

Regarding the seminar program, which will be the fourth conducted by the Bureau, Mr. Borsodi said: "Among proposals to be discussed which concern the financial status of individual firms are the tariff, the organization of the Federal Farm Board, changes in the anti-trust laws, taxation changes, child labor and night work regulations and recent organized promotional activities of The Cotton-Textile Institute, the Wool Institute and the movement now being launched for the silk industry."

▸ Lowell Offers Summer Course in Microscopy

There will be offered this summer, in the chemistry department of Lowell (Mass.) Textile Institute, a course in microscopy and photomicroscopy open to men engaged in the textile industry.

The course will consist of instruction in the manipulation and care of the microscope and its various lighting accessories, optical measurements, the use of polarized light in identifying fibers, the identification of starches, animal fibers, vegetable fibers, and rayons. A short course in the construction and use of photomicrographic apparatus will be included. The laboratory work will parallel the class work.

This course will begin on Monday, June 22, and will continue for three weeks.

▸ Du Pont Moves N. Y. Office to Empire State Bldg.

The New York offices of Du Pont Rayon Co., viscose and acele departments, and Du Pont Cellophane Co., Inc., formerly at 2 Park Ave., will open Monday in their new home in the Empire State Building, 350 Fifth Ave. The general reception room will be on the tenth floor.

▸ Hanson, Stehli, on Silk Association Board

E. Irving Hanson, H. R. Mallinson & Co., Inc., and Henry Stehli, Stehli Silks Corp., were appointed members of the board of managers of the Silk Association of America, Inc., at the quarterly meeting of the board held at Silk Association headquarters in New York. Thomas B. Hill, president of

the association presided at the meeting. The following firms were elected to membership in the association: Atlas Finishing Co.; Collingbourne Mills, Inc.; Lehigh Valley Silk Mills; Worcester Silk Mills Corp.; Douglas Walker & Co., Inc.

A committee was appointed as follows to make arrangements for the sixtieth annual association dinner to be held next January: Charles L. Auger, National Silk Dyeing Co.; Frederick H. Knight, Susquehanna Silk Mills; Paolino Gerli, E. Gerli & Co., Inc.; Henry E. Stehli, Stehli Silks Corp.; A. B. Strange, Read & Lovatt Mfg. Co.

▸ Alliance Made Between Paulson-Linkroum and Waterman-Currier

Paulson, Linkroum & Co., Inc., cotton yarns, has reorganized its business under the title of the Paulson Linkroum Sales Corp. effective July 1. The new corporation will locate its offices at 40 Worth St., New York City, after the above date. Officers of the new company are Leonard C. Linkroum, president and treasurer, and George E. Cilley, secretary.

The Paulson Linkroum Sales Corp. will continue to handle the same class of yarns, and also represent exclusively the same mills as heretofore. The new company will operate in conjunction with Waterman, Currier & Co., Inc., for greater efficiency and economy in distribution. The old firm of Paulson Linkroum & Co., Inc., will complete its current orders as expeditiously as possible from its present offices at 52 Leonard Street, New York.

In effecting this reorganization, it is felt that the trade will be better served and that the distribution of the various mills' products represented will be on a more efficient basis.

▸ Boston Wool Receipts

Receipts of domestic and foreign wools at Boston, also imports at Philadelphia and New York for the week ended June 13, based upon data compiled by the Department of Agriculture, follow:

	Week Ended June 13	Total to Date 1931	Total to Date 1930
Domestic	21,069,000	83,066,000	66,040,000
Foreign	633,000	24,503,000	37,532,000
Total	21,702,000	107,569,000	103,572,000
IMPORTS AT PRINCIPAL PORTS			
Boston	633,000	24,503,000	37,532,000
Philadelphia	2,028,000	23,530,000	28,400,000
New York	1,002,000	25,689,000	25,577,000
Total	3,663,000	73,722,000	91,509,000

▸ Paterson Silk Men Gather at New Headquarters

A group of silk manufacturer, jobbers, and textile machinery men on June 15, organized a new Silk Club at 146 Washington Street, Paterson, N. J., and elected the following officers: president, Morris Brass; vice-president, Samuel Goldstien; secretary, Louis Freed; treasurer, Isaac Goldberg.

Secretary Freed reported that so far there are 177 members on the list and he expects the enrollment to double within the next two weeks.

The address of the evening was delivered by Samuel Goldstien. He said that the curb market is performing a legitimate and necessary function in the trade and its members are as industrious as those in any other industry, and that by gathering in club rooms instead of in the street, they will better promote the interest of the industry.

▸ Omission

In the report of those attending the annual meeting of the Textile Exhibitors Association, Boston, June 9 (TEXTILE WORLD, June 13), the name of Albert Birch, Birch Brothers, Sommerville, Mass., was, unfortunately, omitted.

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Business News

Philadelphia Quartz Co. Beginning Its Second Century

On July 21, 1931, Philadelphia (Pa.) Quartz Co. will officially mark its entry into the second century of business. On that same date in 1831, a factory was founded by Joseph Elkinton in Philadelphia for the manufacture of soap and candles. For 30 years, these were the chief items of the plant, but in 1861 there was begun the manufacture and sale of silicate of soda which was destined to displace the others and to become commercially important.

The first location was a combined store and dwelling. A few years later, expansion of the soap and candle business was noted by the erection of a factory in the rear of the premises.

Joseph Elkinton conducted the business himself for almost 20 years and then was joined by his sons, Joseph S., Asa and Thomas. When Joseph S. Elkinton was taken into the firm, in 1855, the name was changed to Joseph Elkinton & Son.

In January, 1862, the founder withdrew from the business, leaving it to be conducted by Joseph S. and Thomas Elkinton under that name. The first plant expansion came in 1864 when a new factory was set up at 9th and Mifflin Streets, Philadelphia. This was the first of nine plants which have since been added to the Philadelphia Quartz group. A partnership was then formed to trade as Philadelphia Quartz Co., the first time the present company title was used.

William T. Elkinton, who is the present chairman of the board, joined the company in 1879. Alfred C. Elkinton, now president of the Philadelphia Quartz Co. of California, came shortly after. In 1904, the company was incorporated as Philadelphia Quartz Co. and the manufacture of soap was discontinued.

U. S. Representative Harwood Cash & Co., Ltd.

J. C. Macpherson, formerly of Parr & Macpherson, cotton yarns, Philadelphia, has opened offices 1011 Chestnut St. He is United States representative of Harwood Cash & Co., Ltd., Mansfield, Eng.; and, spinners of fine yarns for curtains, voiles, levers, etc. He also represents the Chn. Zimmermann & Son Co., New York, importers, handling sweaters, bathing suits, sportswear, etc. of Bernhard Altmann, Vienna, Austria.

F. K. Billett Becomes Secretary of Toledo Scale Co.

Frank K. Billett, for the the last eight years head of the cost accounting department, has recently been appointed secretary of the Toledo Scale Co., Toledo, Ohio. He has been connected with the company for over ten years. He joined the organization in 1920 as enameling room clerk, and since that date has advanced to his present position.

Ryerson Purchases Reed-Smith Co. of Milwaukee

In 1924 Joseph T. Ryerson & Son, Inc., purchased the interest of W. J. Reed and others in the Reed-Smith Co. of Milwaukee, Wis. Now the Ryerson company has purchased the remaining stock and the firm becomes the Reed-Smith Plant of Joseph T. Ryerson & Son of Wisconsin, Inc. This new move will add further strength to the Ryerson company's chain of warehouses located in 10 principal steel consuming areas of the country.

Mundet Adopts New Sales Company Name

Hereafter the selling organization of L. Mundet & Son, New York, throughout the United States will operate under the name Mundet Cork Corp. In view of the fact that the now world-wide Mundet organization specializes in the cork business and handles all details, it has been decided that the word "cork" should appear in the name used by the sales organization. The company states that there will be no change whatsoever in its sales policy.

Greensboro Loom Reed Co. Will Open Branch in Charlotte

The Greensboro (N. C.) Loom Reed Co. has leased the Bostick building in Charlotte, N. C., and will open a branch plant in it within the next 30 days, according to announcement of G. A. McFetters, president and manager.

The Charlotte branch will be in charge of M. E. McFetters, who has been for the last few years, superintendent of the Greensboro plant, and H. F. Harrill, of Forest City, N. C., who has represented the company among textile manufacturers.

Armstrong Cork Co. Consolidates Boston Offices

Effective Monday, June 15, all the Boston branch sales offices and warehouses of the Armstrong Cork Co., manufacturers of linoleum, insulation materials, and cork products of all kinds, will be consolidated in one office located at 286 Congress Street. Heretofore, separate offices have been maintained for each of the four divisions of the company. In addition, the Temlok Dealer Sales Division of the Armstrong Cork & Insulation Co., recently organized for the sale of Armstrong's Temlok Insulation, will be located at the new address.

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